

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

1 Identification

- **Product identifier**
- **Trade name:** HISTO-CLEAR
- **Article number:** 64110-01, 64110-04, 64110-10
- **CAS Number:**
5989-27-5
- **EC number:**
227-813-5
- **Index number:**
601-029-00-7
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**
(R)-p-mentha-1,8-diene

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 1)

- **Hazard statements**

Flammable liquid and vapor.
Causes skin irritation.
May cause an allergic skin reaction.

- **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Use explosion-proof electrical/ventilating/lighting/equipment.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves / eye protection / face protection.
Wear protective gloves.
Ground/bond container and receiving equipment.
Keep container tightly closed.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Specific treatment (see on this label).
Wash contaminated clothing before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
In case of fire: Use for extinction: CO₂, powder or water spray.
Take off contaminated clothing and wash it before reuse.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 2
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = 1
Fire = 2
Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description**

5989-27-5 (R)-p-mentha-1,8-diene

- **Identification number(s)**

- **EC number:** 227-813-5

- **Index number:** 601-029-00-7

US

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 2)

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 3)

- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
Form: Liquid

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 4)

· Color:	Colorless
· Odor:	Fruit-like
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	-74.3 °C (-102 °F)
Boiling point/Boiling range:	ab173 °C (ab343 °F)
· Flash point:	43 °C (109 °F)
· Flammability (solid, gaseous):	Not flammable.
· Ignition temperature:	255 °C (491 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Not determined.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	0.7 Vol %
Upper:	6.1 Vol %
· Vapor pressure at 20 °C (68 °F):	2.3 hPa (2 mm Hg)
· Density at 20 °C (68 °F):	0.848 g/cm ³ (7.077 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Organic solvents:	100.0 %
VOC content:	100.0 %
	848.0 g/l / 7.08 lb/gl
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

US
(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 5)

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

5989-27-5 (R)-p-mentha-1,8-diene		
Oral	LD50	4400 mg/kg (rat)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** No irritating effect.

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

5989-27-5	(R)-p-mentha-1,8-diene	3
-----------	------------------------	---

- **NTP (National Toxicology Program)**

Substance is not listed.	
--------------------------	--

- **OSHA-Ca (Occupational Safety Health Administration)**

Substance is not listed.	
--------------------------	--

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 2 (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

US

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 6)

14 Transport information

· UN-Number	UN2319
· DOT, ADR, IMDG, IATA	
· UN proper shipping name	Terpene hydrocarbons, n.o.s.
· DOT	2319 Terpene hydrocarbons, n.o.s., ENVIRONMENTALLY HAZARDOUS
· ADR	TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT
· IMDG	TERPENE HYDROCARBONS, N.O.S.
· IATA	
· Transport hazard class(es)	
· DOT	
	
· Class	3 Flammable liquids
· Label	3
· ADR, IMDG	
 	
· Class	3 Flammable liquids
· Label	3
· IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, ADR, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	Yes
	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	30
· EMS Number:	F-E,S-D
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 7)

· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 60 L

On cargo aircraft only: 220 L

· **ADR**

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN2319, Terpene hydrocarbons, n.o.s., ENVIRONMENTALLY
HAZARDOUS, 3, III

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

· **TSCA (Toxic Substances Control Act):**

Substance is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 8)

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

(R)-p-mentha-1,8-diene

· **Hazard statements**

Flammable liquid and vapor.

Causes skin irritation.

May cause an allergic skin reaction.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves / eye protection / face protection.

Wear protective gloves.

Ground/bond container and receiving equipment.

Keep container tightly closed.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

Take off contaminated clothing and wash it before reuse.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 06/15/2015 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

(Contd. on page 10)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

(Contd. of page 9)

US

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** HISTO-CLEAR
- **Article number:** 64110-01, 64110-04, 64110-10
- **CAS Number:**
5989-27-5
- **EC number:**
227-813-5
- **Index number:**
601-029-00-7
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com

ProSciTech Pty Ltd
11 Carlton Street, Kirwan QLD 4817 Australia
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)

Emgrid Australia Pty. Ltd.
P.O. Box 118
The Patch VIC 3792
Australia
Tel: 03 9752 1785
Fax: 03 9752 1784
Website: www.emgrid.com.au
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazards identification

- **Classification of the substance or mixture**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

.....



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: **HISTO-CLEAR**

(Contd. of page 1)

- **Label elements**

- **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Warning

- **Hazard-determining components of labelling:**

(R)-p-mentha-1,8-diene

- **Hazard statements**

Flammable liquid and vapour.

Causes skin irritation.

May cause an allergic skin reaction.

- **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear protective gloves / eye protection / face protection.

Wear protective gloves.

Ground/bond container and receiving equipment.

Keep container tightly closed.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

Take off contaminated clothing and wash it before reuse.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterisation: Substances**

- **CAS No. Description**

5989-27-5 (R)-p-mentha-1,8-diene

- **Identification number(s)**

- **EC number:** 227-813-5

- **Index number:** 601-029-00-7

AU

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 2)

4 First aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 3)

- **Further information about storage conditions:**
 Keep container tightly sealed.
 Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the skin.
 Avoid contact with the eyes and skin.
- **Respiratory protection:**
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
Form: Liquid

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 4)

· Colour:	Colourless
· Odour:	Fruit-like
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	-74.3 °C
Boiling point/Boiling range:	ab173 °C
· Flash point:	43 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	255 °C
· Decomposition temperature:	Not determined.
· Self-igniting:	Not determined.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	0.7 Vol %
Upper:	6.1 Vol %
· Vapour pressure at 20 °C:	2.3 hPa
· Density at 20 °C:	0.848 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	100.0 %
VOC (EC)	100.00 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

AU

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 5)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**

- **LD/LC50 values relevant for classification:**

5989-27-5 (R)-p-mentha-1,8-diene

Oral LD50 4400 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** No irritating effect.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **ADG, IMDG, IATA** UN2319
- **UN proper shipping name**
- **ADG** 2319 TERPENE HYDROCARBONS, N.O.S., ENVIRONMENTALLY HAZARDOUS
- **IMDG** TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT
- **IATA** TERPENE HYDROCARBONS, N.O.S.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 6)

· Transport hazard class(es)

· ADG, IMDG



· Class

3 Flammable liquids.

· Label

3

· IATA



· Class

3 Flammable liquids.

· Label

3

· Packing group

· ADG, IMDG, IATA

III

· Environmental hazards:

· Marine pollutant:

Yes

Symbol (fish and tree)

· Special marking (ADG):

Symbol (fish and tree)

· Special precautions for user

Warning: Flammable liquids.

· Danger code (Kemler):

30

· EMS Number:

F-E,S-D

· Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:

· ADG

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· Transport category

3

· Tunnel restriction code

D/E

· IMDG

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· UN "Model Regulation":

UN 2319, TERPENE HYDROCARBONS, N.O.S.,
ENVIRONMENTALLY HAZARDOUS, 3, III

AU

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: **HISTO-CLEAR**

(Contd. of page 7)

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Chemical Substances**

Substance is listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

Substance is not listed.

· **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Warning

· **Hazard-determining components of labelling:**

(R)-p-mentha-1,8-diene

· **Hazard statements**

Flammable liquid and vapour.

Causes skin irritation.

May cause an allergic skin reaction.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear protective gloves / eye protection / face protection.

Wear protective gloves.

Ground/bond container and receiving equipment.

Keep container tightly closed.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

Take off contaminated clothing and wash it before reuse.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** Substance is not listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 8)

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

AU

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

1 Identification

- **Product identifier**
- **Trade name:** HISTO-CLEAR
- **Article number:** 64110-01, 64110-04, 64110-10
- **CAS Number:**
5989-27-5
- **EC number:**
227-813-5
- **Index number:**
601-029-00-7
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Not applicable.



Irritant

Irritating to skin. May cause sensitisation by skin contact.
Flammable.

- **Information concerning particular hazards for human and environment:** Not applicable.

- **Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 1)

· Code letter and hazard designation of product:



Irritant

· Risk phrases:

Flammable.

Irritating to skin.

May cause sensitisation by skin contact.

· Safety phrases:

Keep away from heat.

Avoid contact with skin.

Wear suitable gloves.

This material and its container must be disposed of as hazardous waste.

· Hazard description:

· WHMIS-symbols:

B3 - Combustible liquid

D2B - Toxic material causing other toxic effects



· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 1

Fire = 2

Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 1

Fire = 2

Reactivity = 0

· Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Substances

· CAS No. Description

5989-27-5 (R)-p-mentha-1,8-diene

· Identification number(s)

· EC number: 227-813-5

· Index number: 601-029-00-7

CA

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 2)

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 3)

- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
Form: Liquid

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 4)

· Color:	Colorless
· Odor:	Fruit-like
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	-74.3 °C
Boiling point/Boiling range:	ab173 °C
· Flash point:	43 °C
· Flammability (solid, gaseous):	Not flammable.
· Ignition temperature:	255 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Not determined.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	0.7 Vol %
Upper:	6.1 Vol %
· Vapor pressure at 20 °C:	2.3 hPa
· Density at 20 °C:	0.848 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Organic solvents:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

CA

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 5)

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

5989-27-5 (R)-p-mentha-1,8-diene

Oral LD50 4400 mg/kg (rat)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** No irritating effect.

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

5989-27-5 (R)-p-mentha-1,8-diene

3

- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety Health Administration)**

Substance is not listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 2 (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

CA

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 6)

14 Transport information

· UN-Number	UN2319
· DOT, TDG, IMDG, IATA	
· UN proper shipping name	Terpene hydrocarbons, n.o.s.
· DOT	2319 Terpene hydrocarbons, n.o.s., ENVIRONMENTALLY HAZARDOUS
· TDG	TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT
· IMDG	TERPENE HYDROCARBONS, N.O.S.
· IATA	
· Transport hazard class(es)	
· DOT	
	
· Class	3 Flammable liquids
· Label	3
· TDG, IMDG	
 	
· Class	3 Flammable liquids
· Label	3
· IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	III
· DOT, TDG, IMDG, IATA	
· Environmental hazards:	Yes
· Marine pollutant:	Symbol (fish and tree)
· Special marking (TDG):	Symbol (fish and tree)
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	30
· EMS Number:	F-E,S-D
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: **HISTO-CLEAR**

(Contd. of page 7)

· TDG	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN2319, Terpene hydrocarbons, n.o.s., ENVIRONMENTALLY HAZARDOUS, 3, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

- **Section 355 (extremely hazardous substances):**

Substance is not listed.

- **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

- **TSCA (Toxic Substances Control Act):**

Substance is listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

Substance is not listed.

- **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

- **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

- **Chemicals known to cause developmental toxicity:**

Substance is not listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

Substance is not listed.

- **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

Substance is listed.

- **Canadian Ingredient Disclosure list (limit 0.1%)**

Substance is not listed.

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/15/2015

Trade name: HISTO-CLEAR

(Contd. of page 8)

· **Canadian Ingredient Disclosure list (limit 1%)**

Substance is listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**



Irritant

· **Risk phrases:**

Flammable.

Irritating to skin.

May cause sensitisation by skin contact.

· **Safety phrases:**

Keep away from heat.

Avoid contact with skin.

Wear suitable gloves.

This material and its container must be disposed of as hazardous waste.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 06/15/2015 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** HISTO-CLEAR
- **Article number:** 64110-01, 64110-04, 64110-10
- **CAS Number:**
5989-27-5
- **EC number:**
227-813-5
- **Index number:**
601-029-00-7
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 1)

· **Hazard pictograms**· **Signal word** Warning· **Hazard-determining components of labelling:**

(R)-p-mentha-1,8-diene

· **Hazard statements**

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P321 Specific treatment (see on this label).

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.1 Chemical characterisation: Substances**· **CAS No. Description**

5989-27-5 (R)-p-mentha-1,8-diene

· **Identification number(s)**· **EC number:** 227-813-5· **Index number:** 601-029-00-7

SECTION 4: First aid measures

· **4.1 Description of first aid measures**· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.· **After eye contact:** Rinse opened eye for several minutes under running water.· **After swallowing:** If symptoms persist consult doctor.· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: **HISTO-CLEAR**

(Contd. of page 2)

- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 3)

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Colourless

· **Odour:** Fruit-like

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: -74.3 °C

Boiling point/Boiling range: ab173 °C

· **Flash point:** 43 °C

· **Flammability (solid, gaseous):** Not applicable.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 4)

· Ignition temperature:	255 °C
· Decomposition temperature:	Not determined.
· Self-igniting:	Not determined.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	0.7 Vol %
Upper:	6.1 Vol %
· Vapour pressure at 20 °C:	2.3 hPa
· Density at 20 °C:	0.848 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	100.0 %
VOC (EC)	100.00 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**

· LD/LC50 values relevant for classification:		
5989-27-5 (R)-p-mentha-1,8-diene		
Oral	LD50	4400 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** No irritating effect.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 5)

· **Respiratory or skin sensitisation** Sensitisation possible through skin contact.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
 Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|--|---|
| · 14.1 UN-Number | UN2319 |
| · ADR, IMDG, IATA | |
| · 14.2 UN proper shipping name | 2319 TERPENE HYDROCARBONS, N.O.S.,
ENVIRONMENTALLY HAZARDOUS
TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT
TERPENE HYDROCARBONS, N.O.S. |
| · ADR | |
| · IMDG | |
| · IATA | |
| · 14.3 Transport hazard class(es) |   |
| · ADR, IMDG | |
| · Class | |
| 3 Flammable liquids. | |

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 6)

· Label	3
· IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	
· ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	Yes Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	30
· EMS Number:	F-E,S-D
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN2319, TERPENE HYDROCARBONS, N.O.S., ENVIRONMENTALLY HAZARDOUS, 3, III

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 15.06.2015

Revision: 15.06.2015

Trade name: HISTO-CLEAR

(Contd. of page 7)

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

GB

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2015.06.15

在 2015.06.15 审核

1 化学品及企业标识

- 产品识别者
- 化学品中文(英文)名称, 化学品俗名或商品名: **HISTO-CLEAR**
- 商品编号: 64110-01, 64110-04, 64110-10
- CAS 编号:
5989-27-5
- 欧盟编号:
227-813-5
- 欧盟编号:
601-029-00-7
- 相应纯物质或者混合物的相关下位用途及禁止用途 无相关详细资料。
- 原材料的应用/准备工作进行 实验室化学物
- 安全技术说明书内供应商详细信息
- 企业名称:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- 可获取更多资料的部门: Product safety department
- 紧急联系电话号码:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危险性概述

· 紧急情况概述:

无色的, 液体, 易燃液体和蒸气。引起皮肤刺激。可能引起皮肤过敏性反应。对水生生物毒性非常大并且有长期持续影响。

· GHS危险性类别



火焰

易燃液体 第3类

H226 易燃液体和蒸气



环境

对水环境的危害(急性) 第1类 H400 对水生生物毒性非常大

对水环境的危害(慢性) 第1类 H410 对水生生物毒性非常大并且有长期持续影响



皮肤腐蚀/刺激 第2类

H315 引起皮肤刺激

敏化(皮肤) 第1类

H317 可能引起皮肤过敏性反应

· 标签因素

- **GHS卷标元素** 本化学物质根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

(在 2 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2015.06.15

在 2015.06.15 审核

化学品中文(英文)名称, 化学品俗名或商品名 : HISTO-CLEAR

(在 1 页继续)

· 图示



· 名称 警告

· 标签上辨别危险的成份:

(R-)1-甲基-4-(1-甲基乙烯基)环己烯

· 危险字句

易燃液体和蒸气

引起皮肤刺激

可能引起皮肤过敏反应

对水生生物毒性非常大并且有长期持续影响

· 警戒字句

· 预防措施

远离热源/火花/明火/热表面。 - 禁止吸烟。

使用防爆的电气/通风/照明/设备。

避免吸入粉尘/烟/气体/烟雾/蒸气/喷雾。

· 事故响应

如皮肤(或头发)沾染: 立即去脱/脱掉所有沾染的衣服。用水清洗皮肤/淋浴。

具体治疗(见本标签上的)。

· 废弃处置

按照本地 / 地区 / 国家 / 国际规例处理内含物 / 容器。

· 其他有害性

· PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果

· PBT(残留性、生物浓缩性、毒性物质) 不适用的

· vPvB(高残留性、高生物浓缩性物质): 不适用的

3 成分/组成信息

· 纯品

· CAS号 化学名, 通用名

5989-27-5 (R-)1-甲基-4-(1-甲基乙烯基)环己烯

· 鉴别编号:

· 欧盟编号: 227-813-5

· 欧盟编号: 601-029-00-7

4 急救措施

· 应急措施要领

· 吸入:

供给新鲜空气并且确保会叫医生。

万一病人不清醒时,请让病人侧躺以便移动。

· 皮肤接触: 马上用水和肥皂进行彻底的冲洗。

· 眼睛接触: 张开眼睛在流水下冲洗数分钟。

· 食入: 如果症状仍然持续,请咨询医生。

· 给医生的资料:

· 最重要的急慢性症状及其影响 无相关详细资料。

(在 3 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2015.06.15

在 2015.06.15 审核

化学品中文(英文)名称, 化学品俗名或商品名 : HISTO-CLEAR

(在 2 页继续)

· 需要及时的医疗处理及特别处理的症状 无相关详细资料。

5 消防措施

- **灭火方法**
- **灭火的方法和灭火剂:** 使用二氧化碳 (CO₂)、沙粒、灭火粉末. 切勿使用水.
- **为了安全,不适当的灭火剂会:** 使用全喷嘴的水
- **特别危险性** 无相关详细资料。
- **特殊灭火方法**
- **消防人员特殊的防护装备:** 没有要求特别的措施.

6 泄漏应急处理

- **保护措施** 带上保护仪器. 让未受到保护的人们远离.
- **环境保护措施:** 切勿让其进入下水道/水面或地下水.
- **密封及净化方法和材料:**
吸收液体粘合原料 (沙粒、硅藻土、酸性粘合剂、通用粘合剂、锯屑).
确保有足够的通风装置.
切勿用水 或水溶清洁剂来冲清.
- **参照其他部分**
有关安全处理的资料请参阅第 7 节.
有关个人防护装备的的资料请参阅第 8 节.
有关弃置的资料请参阅第 13 节.

7 操作处置与储存

- **操作处置**
- **储存**
确保工作间有良好的通风/排气装置.
防止气溶胶的形成.
- **有关火灾及防止爆炸的资料:**
远离火源 - 切勿吸烟.
防热.
防静电.
- **混合危险性等安全储存条件**
- **储存:**
· **储存库和容器须要达到的要求:** 没有特别的要求.
- **有关使用一个普通的储存设施来储存的资料:** 不需要.
- **有关储存条件的更多资料:**
将容器密封.
免受接触热力和直接受阳光照射.
- **具体的最终用户** 无相关详细资料。

8 接触控制和个体防护

- **工程控制方法:** 没有进一步数据;见第 7 项.
- **控制变数**
- **在工作场需要监控的限值成分** 不要求.
- **额外的资料:** 制作期间有效的清单将作为基础来使用.

(在 4 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2015.06.15

在 2015.06.15 审核

化学品中文(英文)名称, 化学品俗名或商品名 : HISTO-CLEAR

(在 3 页继续)

- **泄漏控制**
- **个人防护设备:**
- **一般保护和卫生措施:**
 - 远离食品、饮料和饲料.
 - 立即除去所有的不洁的和被污染的衣服.
 - 在休息之前和工作完毕后请清洗双手.
 - 避免和皮肤接触.
 - 避免和眼睛及皮肤接触.
- **呼吸系统防护:**
 - 如果曾短暂接触或在低污染的情况下,请使用呼吸过滤装置. 如果曾深入或较长时间接触,请使用独立的呼吸保护装置.
- **手防护:**



保护手套

- 手套的物料必须是不渗透性的, 且能抵抗该产品/物质/添加剂.
- 基于缺乏测试, 对于产品/制剂/化学混合物, 并不会提供手套材料的建议
- 选择手套材料时, 请注意材料的渗透时间, 渗透率和降解参数
- **手套材料** 选择合适的手套不单取决于材料, 亦取决于质量特征, 以及来自哪一间生产厂家
 - **渗入手套材料的时间** 请向劳保手套生产厂家获取准确的破裂时间并观察实际的破裂时间
 - **眼睛防护:**



密封的护目镜

9 理化特性

- **有关基本物理及化学特性的信息**
- **一般说明**
- **外观:**
 - 形状:** 液体
 - 颜色:** 无色的
 - 气味:** 类似水果
 - 嗅觉阈限** 未决定.

· **pH值:** 未决定.

· 条件的更改

熔点: -74.3 °C

沸点/初沸点和沸程: ab173 °C

· **闪点:** 43 °C

· **可燃性 (固体、气体):** 不适用的

· **点火温度:** 255 °C

· **分解温度:** 未决定.

· **自燃温度:** 未决定.

· **爆炸的危险性:** 该产品并非爆炸性的然而有可能形成可爆炸性的空气/蒸汽混合物

(在 5 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2015.06.15

在 2015.06.15 审核

化学品中文(英文)名称, 化学品俗名或商品名 : HISTO-CLEAR

(在 4 页继续)

- **爆炸极限:**
 - 较低: 0.7 Vol %
 - 较高: 6.1 Vol %
- **蒸气压 在 20 °C:** 2.3 hPa
- **密度 在 20 °C:** 0.848 g/cm³
- **相对密度** 未决定.
- **蒸气密度** 未决定.
- **蒸发速率** 未决定.
- **溶解性**
 - 水: 不能拌和的或难以拌和
- **n-辛醇/水分配系数:** 未决定.
- **黏性:**
 - 动态: 未决定.
 - 运动学的: 未决定.
 - 有机溶剂: 100.0 %
- **其他信息** 无相关详细资料。

10 稳定性和反应性

- **反应性**
- **稳定性**
- **热分解/要避免的情况:** 如果遵照规格使用则不会分解.
- **有害反应可能性** 未有已知的危险反应.
- **应避免的条件** 无相关详细资料.
- **不相容的物质:** 无相关详细资料.
- **危险的分解产物:** 未知有危险的分解产品.

11 毒理学信息

- **对毒性学影响的信息**
- **急性毒性:**

· **与分类相关的 LD/LC50 值:**

5989-27-5 (R-)-1-甲基-4-(1-甲基乙烯基)环己烯

口腔 LD50 4400 mg/kg (rat)

- **主要的刺激性影响:**
- **皮肤:** 刺激皮肤和粘膜.
- **在眼睛上面:** 没有刺激的影响.
- **致敏作用:** 通过皮肤接触可能造成敏化作用.

12 生态学信息

- **生态毒性**
- **水生毒性:** 无相关详细资料.
- **持久性和降解性** 无相关详细资料.
- **环境系统习性:**
- **潜在的生物累积性** 无相关详细资料.

(在 6 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2015.06.15

在 2015.06.15 审核

化学品中文(英文)名称, 化学品俗名或商品名 : HISTO-CLEAR

(在 5 页继续)

- **土壤内移动性** 无相关详细资料。
- **额外的生态学资料:**
- **总括注解:**
 - 水危害级别 2 (德国规例) (评估): 对水是危害的
 - 不要让该产品接触地下水、水道或污水系统.
 - 即使是少量的产品渗入地下也会对饮用水造成危险.
- **PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果**
- **PBT(残留性、生物浓缩性、毒性物质)** 不适用的
- **vPvB(高残留性、高生物浓缩性物质):** 不适用的
- **其他副作用** 无相关详细资料。

13 废弃处置

- **废弃处置方法**
- **建议:** 不能将该产品和家居垃圾一起丢弃. 不要让该产品接触污水系统.
- **受污染的容器和包装:**
- **建议:** 必须根据官方的规章来丢弃.

14 运输信息

- | | |
|---|--|
| · 联合国危险货物编号(UN号) | UN2319 |
| · ADR, IMDG, IATA | |
| · UN适当装船名 | 2319 TERPENE HYDROCARBONS, N.O.S., ENVIRONMENTALLY HAZARDOUS |
| · ADR | TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT |
| · IMDG | |
| · IATA | TERPENE HYDROCARBONS, N.O.S. |
| · 运输危险等级 | |
| · ADR, IMDG | |
|   | |
| · 级别 | 3 可燃液体 |
| · 标签 | 3 |
| · IATA | |
|  | |
| · Class | 3 可燃液体 |
| · Label | 3 |
| · 包装组别 | |
| · ADR, IMDG, IATA | III |

(在 7 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2015.06.15

在 2015.06.15 审核

化学品中文(英文)名称, 化学品俗名或商品名: HISTO-CLEAR

(在 6 页继续)

· 危害环境:	是
· 海运污染物质:	象征符号 (鱼和树)
· 特别 标记 (ADR):	象征符号 (鱼和树)
· 用户特别预防措施	警告: 可燃液体
· 危险编码:	30
· EMS 号码:	F-E,S-D
· MARPOL73/78(针对船舶引起的海洋污染预防协约)附件书2及根据IBC Code(国际装船货物编码)的大量运送	不适用的
· 运输/额外的资料:	
· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "标准规定":	UN2319, TERPENE HYDROCARBONS, N.O.S., ENVIRONMENTALLY HAZARDOUS, 3, III

15 法规信息

- 对相应纯物质或者混合物的安全、保健及环境法规/法律
- 新化学物质环境管理办法

· 中国现有化学物质名录

有列出物质.

- GHS卷标元素 本化学物质根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

· 危险象形图表



GHS02 GHS07 GHS09

· 名称 警告

· 标签上辨别危险的成份:

(R-)1-甲基-4-(1-甲基乙烯基)环己烯

· 危险字句

易燃液体和蒸气

引起皮肤刺激

可能引起皮肤过敏反应

对水生生物毒性非常大并且有长期持续影响

· 警戒字句

· 预防措施

远离热源/火花/明火/热表面。 - 禁止吸烟。

(在 8 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2015.06.15

在 2015.06.15 审核

化学品中文(英文)名称, 化学品俗名或商品名 : HISTO-CLEAR

(在 7 页继续)

使用防爆的电气/通风/照明/设备。

避免吸入粉尘/烟/气体/烟雾/蒸气/喷雾。

· 事故响应

如皮肤(或头发)沾染 : 立即去脱/脱掉所有沾染的衣服。用水清洗皮肤/淋浴。

具体治疗(见本标签上的)。

· 废弃处置

按照本地 / 地区 / 国家 / 国际规例处理内含物 / 容器。

· 化学物质安全性评价: 尚未进行化学物质安全性评价

16 其他信息

该资料是基于我们目前的知识。然而,这并不构成对任何特定产品特性的担保并且不建立一个法律上有效的合同关系。

· 缩写:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

易燃液体 第3类: Flammable liquids, Hazard Category 3

皮肤腐蚀/刺激 第2类: Skin corrosion/irritation, Hazard Category 2

敏化(皮肤) 第1类: Sensitisation - Skin, Hazard Category 1

对水环境的危害(急性) 第1类: Hazardous to the aquatic environment - AcuteHazard, Category 1

对水环境的危害(慢性) 第1类: Hazardous to the aquatic environment - Chronic Hazard, Category 1

CN

Veiligheidsinformatieblad volgens 1907/2006/EG, Artikel 31

datum van de druk: 15.06.2015

Herziening van: 15.06.2015

RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

- **1.1 Productidentificatie**
- **Handelsnaam:** HISTO-CLEAR
- **Artikelnummer:** 64110-01, 64110-04, 64110-10
- **CAS-nummer:**
5989-27-5
- **EC-nummer:**
227-813-5
- **Catalogusnummer:**
601-029-00-7
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com

Aurion
Binnenhaven 5
6709 PD Wageningen
The Netherlands
Tel: 31 317 415094
Fax: 31 317 415955
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

- **2.1 Indeling van de stof of het mengsel**
- **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**



GHS02 vlam

Flam. Liq. 3 H226 Ontvlambare vloeistof en damp.



GHS09 milieu

Aquatic Acute 1 H400 Zeer giftig voor in het water levende organismen.

Aquatic Chronic 1 H410 Zeer giftig voor in het water levende organismen, met langdurige gevolgen.



GHS07

(Vervolg op blz. 2)

Veiligheidsinformatieblad volgens 1907/2006/EG, Artikel 31

datum van de druk: 15.06.2015

Herziening van: 15.06.2015

Handelsnaam: HISTO-CLEAR

(Vervolg van blz. 1)

Skin Irrit. 2 H315 Veroorzaakt huidirritatie.
Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.

· 2.2 Etiketteringselementen

· Etikettering overeenkomstig Verordening (EG) nr. 1272/2008

De stof/product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

· Gevarenpictogrammen



GHS02 GHS07 GHS09

· Signaalwoord Waarschuwing

· Gevaaraanduidende componenten voor de etikettering:

(R)-p-mentha-1,8-dieen

· Gevarenaanduidingen

H226 Ontvlambare vloeistof en damp.

H315 Veroorzaakt huidirritatie.

H317 Kan een allergische huidreactie veroorzaken.

H410 Zeer giftig voor in het water levende organismen, met langdurige gevolgen.

· Veiligheidsaanbevelingen

P210 Verwijderd houden van warmte/vonken/open vuur/hete oppervlakken. - Niet roken.

P241 Explosieveilige elektrische/ventilatie-/verlichtings-apparatuur gebruiken.

P261 Inademing van stof/rook/gas/nevel/damp/spuitnevel vermijden.

P303+P361+P353 BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken - huid met water afspoelen/afdouchen.

P321 Specifieke behandeling vereist (zie op dit etiket).

P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

· 2.3 Andere gevaren

· Resultaten van PBT- en zPzB-beoordeling

· **PBT:** Niet bruikbaar.

· **zPzB:** Niet bruikbaar.

RUBRIEK 3: Samenstelling en informatie over de bestanddelen

· 3.1 Chemische karakterisering: Stoffen

· CAS-Nr. omschrijving

5989-27-5 (R)-p-mentha-1,8-dieen

· Identificatienummer(s)

· **EC-nummer:** 227-813-5

· **Catalogusnummer:** 601-029-00-7

RUBRIEK 4: Eerstehulpmaatregelen

· 4.1 Beschrijving van de eerstehulpmaatregelen

· Na het inademen:

Veel verse lucht toedienen en voor alle zekerheid een arts raadplegen.

Bij bewusteloosheid ligging en vervoer in stabiele zijligging.

· **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.

· **Na oogcontact:** Ogen bij geopend ooglid meerdere minuten met stromend water spoelen

(Vervolg op blz. 3)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 15.06.2015

Herziening van: 15.06.2015

Handelsnaam: HISTO-CLEAR

(Vervolg van blz. 2)

- **Na inslikken:** Als de klachten niet minderen, een arts raadplegen
- **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.
- **4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**
Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:** CO₂, zand, bluspoeder. Geen water gebruiken.
- **Blusmiddelen die uit veiligheidsoogpunt niet geschikt zijn:** Krachtige waterstraal
- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweerlieden**
- **Speciale beschermende kleding:** Geen bijzondere maatregelen nodig.

RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures**
Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.
- **6.2 Milieuvorzorgsmaatregelen:** Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 Insluitings- en reinigingsmethoden en -materiaal:**
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.
Voor voldoende ventilatie zorgen.
Niet met water of waterachtige reinigingsmiddelen wegspoelen.
- **6.4 Verwijzing naar andere rubrieken**
Informatie inzake veilig gebruik - zie hoofdstuk 7.
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
Informatie inzake berging - zie hoofdstuk 13.

RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.
Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:**
Onststekingsbronnen op afstand houden - niet roken.
Beschermen tegen hitte.
Maatregelen treffen tegen ontlading van statische elektriciteit.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:**
Tanks ondoordringbaar gesloten houden.
Tegen hitte en directe zonnestralen beschermen.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.

(Vervolg op blz. 4)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 15.06.2015

Herziening van: 15.06.2015

Handelsnaam: HISTO-CLEAR

(Vervolg van blz. 3)

- **8.1 Controleparameters**
- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:** Vervalt.
- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**
 - Verwijderd houden van eet- en drinkwaren.
 - Verontreinigde kleding onmiddellijk uittrekken.
 - Vóór de pauze en aan het einde van werktijd handen wassen.
 - Aanraking met de huid vermijden.
 - Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:**
 - Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingstoestel gebruiken.
- **Handbescherming:**



Veiligheidshandschoenen

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.

Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.

- **Handschoenmateriaal**

De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant.

- **Doordringingstijd van het handschoenmateriaal**

De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

- **Oogbescherming:**



Nauw aansluitende veiligheidsbril

RUBRIEK 9: Fysische en chemische eigenschappen

- **9.1 Informatie over fysische en chemische basiseigenschappen**

- **Algemene gegevens**

- **Voorkomen:**

Vorm:	Vloeistof
Kleur:	Kleurloos
Reuk:	Vruchtachtig
Geurdrempelwaarde:	Niet bepaald.

- **pH-waarde:** Niet bepaald.

- **Toestandsverandering**

Smelpunt/smeltbereik:	-74,3 °C
Kookpunt/kookpuntbereik:	ab173 °C

- **Vlampunt:** 43 °C

(Vervolg op blz. 5)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 15.06.2015

Herziening van: 15.06.2015

Handelsnaam: HISTO-CLEAR

(Vervolg van blz. 4)

· Ontvlambaarheid (vast, gasvormig):	Niet bruikbaar.
· Ontstekingsstemperatuur:	255 °C
· Ontbindingstemperatuur:	Niet bepaald.
· Zelfontsteking:	Niet bepaald.
· Ontploffingsgevaar:	Het produkt is niet ontploffingsgevaarlijk, maar de vorming van ontploffingsgevaarlijke damp-/luchtmengsels is mogelijk.
· Ontploffingsgrenzen:	
Onderste:	0,7 Vol %
Bovenste:	6,1 Vol %
· Dampspanning bij 20 °C:	2,3 hPa
· Dichtheid bij 20 °C:	0,848 g/cm ³
· Relatieve dichtheid	Niet bepaald.
· Dampdichtheid	Niet bepaald.
· Verdampingssnelheid	Niet bepaald.
· Oplosbaarheid in/mengbaarheid met Water:	Niet resp. gering mengbaar.
· Verdelingscoëfficiënt (n-octanol/water):	Niet bepaald.
· Viscositeit	
Dynamisch:	Niet bepaald.
Kinematisch:	Niet bepaald.
· Oplosmiddelgehalte:	
Organisch oplosmiddel:	100,0 %
VOC (EG)	100,00 %
· 9.2 Overige informatie	Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit**
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **10.3 Mogelijke gevaarlijke reacties** Geen gevaarlijke reacties bekend.
- **10.4 Te vermijden omstandigheden** Geen verdere relevante informatie verkrijgbaar.
- **10.5 Chemisch op elkaar inwerkende materialen:** Geen verdere relevante informatie verkrijgbaar.
- **10.6 Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsprodukten bekend.

RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit**

· Indelingsrelevantie LD/LC50-waarden:		
5989-27-5 (R)-p-mentha-1,8-dien		
Oraal	LD50	4400 mg/kg (rat)

- **Primaire aandoening:**
- **Huidcorrosie/-irritatie** Prikkelde huid en de slijmvliezen.

(Vervolg op blz. 6)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 15.06.2015

Herziening van: 15.06.2015

Handelsnaam: HISTO-CLEAR

(Vervolg van blz. 5)

- **Ernstig oogletsel/oogirritatie** Geen prikkelend effect.
- **Sensibilisatie van de luchtwegen/de huid** Kan overgevoeligheid veroorzaken bij contact met de huid.

RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**
Waterbezwaarlijkheid (NL) 4: Zeer vergiftig voor in het water levende organismen; kan in het aquatisch milieu op lange termijn schadelijke effecten veroorzaken.
Gevaar voor water klasse 2 (D) (Lijstclassificatie): gevaar voor water
Niet lozen in grondwater, in oppervlaktewater of in riolering.
Gevaar voor drinkwater zelfs bij uitlopen van geringe hoeveelheden in de ondergrond.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terechtkomen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- **14.1 VN-nummer**
- **ADR, IMDG, IATA** UN2319
- **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**
- **ADR** 2319 TERPEEN-KOOLWATERSTOFFEN, N.E.G., MILIEUGEVAARLIJK
- **IMDG** TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT
- **IATA** TERPENE HYDROCARBONS, N.O.S.
- **14.3 Transportgevarenklasse(n)**
- **ADR, IMDG**
- 
- **klasse** 3 Brandbare vloeistoffen

(Vervolg op blz. 7)

Veiligheidsinformatieblad **volgens 1907/2006/EG, Artikel 31**

datum van de druk: 15.06.2015

Herziening van: 15.06.2015

Handelsnaam: HISTO-CLEAR

(Vervolg van blz. 6)

· Etiket	3
· IATA	
	
· Class	3 Brandbare vloeistoffen
· Label	3
· 14.4 Verpakkingsgroep: · ADR, IMDG, IATA	III
· 14.5 Milieugevaren: · Marine pollutant:	Ja Symbool (vis en boom)
· Bijzondere kenmerking (ADR):	Symbool (vis en boom)
· 14.6 Bijzondere voorzorgen voor de gebruiker · Kemler-getal: · EMS-nummer:	Waarschuwing: Brandbare vloeistoffen 30 F-E,S-D
· 14.7 Vervoer in bulk overeenkomstig bijlage II bij MARPOL 73/78 en de IBC-code	Niet bruikbaar.
· Transport/verdere gegevens:	
· ADR · Beperkte hoeveelheden (LQ) · Uitgezonderde hoeveelheden (EQ)	5L Code: E1 Grootste netto hoeveelheid per binnenverpakking: 30 ml Grootste netto hoeveelheid per buitenverpakking: 1000 ml
· Vervoerscategorie · Tunnelbeperkingscode	3 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· VN "Model Regulation":	UN2319, TERPEEN-KOOLWATERSTOFFEN, N.E.G., MILIEUGEVAARLIJK, 3, III

RUBRIEK 15: Regelgeving

· **15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel**

· **SZW-lijst van kankerverwekkende stoffen**

De stof is niet aanwezig.

· **SZW-lijst van mutagene stoffen**

De stof is niet aanwezig.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid**

De stof is niet aanwezig.

(Vervolg op blz. 8)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 15.06.2015

Herziening van: 15.06.2015

Handelsnaam: HISTO-CLEAR

(Vervolg van blz. 7)

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling**

De stof is niet aanwezig.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding**

De stof is niet aanwezig.

· **Richtlijn 2012/18/EU**

· **Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I** De stof is niet aanwezig.

· **Nationale voorschriften:**

· **Gevaarklasse v. water:** Waterbezwaarlijkheid (NL) 4: Saneringsinspanning A

· **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkteigenschappen en vestigen geen contractuele rechtsbetrekking.

· **Afkortingen en acroniemen:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

-NL-

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 15.06.2015

Révision: 15.06.2015

SECTION 1: Identification de la substance/du mélange et de la société/l'entreprise

- **1.1 Identificateur de produit**
- **Nom du produit:** HISTO-CLEAR
- **Code du produit:** 64110-01, 64110-04, 64110-10
- **No CAS:**
5989-27-5
- **Numéro CE:**
227-813-5
- **Numéro index:**
601-029-00-7
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECTION 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS02 flamme

Flam. Liq. 3 H226 Liquide et vapeurs inflammables.



GHS09 environnement

Aquatic Acute 1 H400 Très toxique pour les organismes aquatiques.

Aquatic Chronic 1 H410 Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.



GHS07

Skin Irrit. 2 H315 Provoque une irritation cutanée.

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** La substance est classifiée et étiquetée selon le règlement CLP.

(suite page 2)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 15.06.2015

Révision: 15.06.2015

Nom du produit: HISTO-CLEAR

(suite de la page 1)

· **Pictogrammes de danger**· **Mention d'avertissement** Attention· **Composants dangereux déterminants pour l'étiquetage:**

(R)-p-mentha-1,8-diène

· **Mentions de danger**

H226 Liquide et vapeurs inflammables.

H315 Provoque une irritation cutanée.

H317 Peut provoquer une allergie cutanée.

H410 Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.

· **Conseils de prudence**

P210 Tenir à l'écart de la chaleur/des étincelles/des flammes nues/des surfaces chaudes. - Ne pas fumer.

P241 Utiliser du matériel électrique/de ventilation/d'éclairage/antidéflagrant.

P261 Éviter de respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.

P303+P361+P353 EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): enlever immédiatement les vêtements contaminés. Rincer la peau à l'eau/se doucher.

P321 Traitement spécifique (voir sur cette étiquette).

P501 Éliminer le contenu/réceptacle conformément à la réglementation locale/régionale/nationale/internationale.

· **2.3 Autres dangers**· **Résultats des évaluations PBT et vPvB**· **PBT:** Non applicable.· **vPvB:** Non applicable.

SECTION 3: Composition/informations sur les composants

· **3.1 Caractérisation chimique: Substances**· **No CAS Désignation**

5989-27-5 (R)-p-mentha-1,8-diène

· **Code(s) d'identification**· **Numéro CE:** 227-813-5· **Numéro index:** 601-029-00-7

SECTION 4: Premiers secours

· **4.1 Description des premiers secours**· **Après inhalation:**

Donner de l'air frais en abondance et consulter un médecin pour plus de sécurité.

En cas d'inconscience, coucher et transporter la personne en position latérale stable.

· **Après contact avec la peau:** Laver immédiatement à l'eau et au savon et bien rincer.· **Après contact avec les yeux:**

Rincer les yeux, sous l'eau courante, pendant plusieurs minutes, en écartant bien les paupières.

· **Après ingestion:** Si les troubles persistent, consulter un médecin.· **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.

(suite page 3)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 15.06.2015

Révision: 15.06.2015

Nom du produit: HISTO-CLEAR

(suite de la page 2)

- **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**
Pas d'autres informations importantes disponibles.

SECTION 5: Mesures de lutte contre l'incendie

- **5.1 Moyens d'extinction**
- **Moyens d'extinction:** CO₂, sable, poudre d'extinction. Ne pas utiliser d'eau.
- **Produits extincteurs déconseillés pour des raisons de sécurité:** Jet d'eau à grand débit
- **5.2 Dangers particuliers résultant de la substance ou du mélange**
Pas d'autres informations importantes disponibles.
- **5.3 Conseils aux pompiers**
- **Équipement spécial de sécurité:** Aucune mesure particulière n'est requise.

SECTION 6: Mesures à prendre en cas de dispersion accidentelle

- **6.1 Précautions individuelles, équipement de protection et procédures d'urgence**
Porter un équipement de sécurité. Eloigner les personnes non protégées.
- **6.2 Précautions pour la protection de l'environnement:**
Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.
- **6.3 Méthodes et matériel de confinement et de nettoyage:**
Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).
Assurer une aération suffisante.
Ne pas rincer à l'eau ou aux produits nettoyants aqueux.
- **6.4 Référence à d'autres sections**
Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.
Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.
Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

SECTION 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**
Veiller à une bonne ventilation/aspiration du poste de travail.
Eviter la formation d'aérosols.
- **Préventions des incendies et des explosions:**
Tenir à l'abri des sources d'inflammation - ne pas fumer.
Tenir à l'abri de la chaleur.
Prendre des mesures contre les charges électrostatiques.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**
Tenir les emballages hermétiquement fermés.
Protéger de la forte chaleur et du rayonnement direct du soleil.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

FR

(suite page 4)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 15.06.2015

Révision: 15.06.2015

Nom du produit: HISTO-CLEAR

(suite de la page 3)

SECTION 8: Contrôles de l'exposition/protection individuelle

· **Indications complémentaires pour l'agencement des installations techniques:**

Sans autre indication, voir point 7.

· **8.1 Paramètres de contrôle**

· **Composants présentant des valeurs-seuil à surveiller par poste de travail:** Néant

· **Remarques supplémentaires:**

Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.

· **8.2 Contrôles de l'exposition**

· **Équipement de protection individuel:**

· **Mesures générales de protection et d'hygiène:**

Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.

Retirer immédiatement les vêtements souillés ou humectés.

Se laver les mains avant les pauses et en fin de travail.

Eviter tout contact avec la peau.

Eviter tout contact avec les yeux et avec la peau.

· **Protection respiratoire:**

En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.

· **Protection des mains:**



Gants de protection

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.

À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.

Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.

· **Matériau des gants**

Le choix de gants appropriés ne dépend pas seulement du matériau, mais également d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre.

· **Temps de pénétration du matériau des gants**

Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

· **Protection des yeux:**



Lunettes de protection hermétiques

SECTION 9: Propriétés physiques et chimiques

· **9.1 Informations sur les propriétés physiques et chimiques essentielles**

· **Indications générales**

· **Aspect:**

Forme: Liquide

Couleur: Incolore

· **Odeur:** Fruitée

· **Seuil olfactif:** Non déterminé.

· **valeur du pH:** Non déterminé.

(suite page 5)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 15.06.2015

Révision: 15.06.2015

Nom du produit: HISTO-CLEAR

(suite de la page 4)

· Changement d'état Point de fusion:	-74,3 °C
Point d'ébullition:	ab173 °C
· Point d'éclair	43 °C
· Inflammabilité (solide, gazeux):	Non applicable.
· Température d'inflammation:	255 °C
· Température de décomposition:	Non déterminé.
· Auto-inflammation:	Non déterminé.
· Danger d'explosion:	Le produit n'est pas explosif; toutefois, des mélanges explosifs vapeur-air peuvent se former.
· Limites d'explosion: Inférieure:	0,7 Vol %
Supérieure:	6,1 Vol %
· Pression de vapeur à 20 °C:	2,3 hPa
· Densité à 20 °C:	0,848 g/cm ³
· Densité relative	Non déterminé.
· Densité de vapeur.	Non déterminé.
· Vitesse d'évaporation	Non déterminé.
· Solubilité dans/miscibilité avec l'eau:	Pas ou peu miscible
· Coefficient de partage (n-octanol/eau):	Non déterminé.
· Viscosité: Dynamique:	Non déterminé.
Cinématique:	Non déterminé.
· Teneur en solvants: Solvants organiques:	100,0 %
VOC (CE)	100,00 %
· 9.2 Autres informations	Pas d'autres informations importantes disponibles.

SECTION 10: Stabilité et réactivité

- **10.1 Réactivité**
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.
- **10.3 Possibilité de réactions dangereuses** Aucune réaction dangereuse connue.
- **10.4 Conditions à éviter** Pas d'autres informations importantes disponibles.
- **10.5 Matières incompatibles:** Pas d'autres informations importantes disponibles.
- **10.6 Produits de décomposition dangereux:** Pas de produits de décomposition dangereux connus

FR

(suite page 6)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 15.06.2015

Révision: 15.06.2015

Nom du produit: HISTO-CLEAR

(suite de la page 5)

SECTION 11: Informations toxicologiques

· 11.1 Informations sur les effets toxicologiques

· Toxicité aiguë

· Valeurs LD/LC50 déterminantes pour la classification:

5989-27-5 (R)-p-mentha-1,8-diène

Oral	LD50	4400 mg/kg (rat)
------	------	------------------

· Effet primaire d'irritation:

· **Corrosion cutanée/irritation cutanée** Irrite la peau et les muqueuses.

· **Lésions oculaires graves/irritation oculaire** Pas d'effet d'irritation.

· **Sensibilisation respiratoire ou cutanée** Sensibilisation possible par contact avec la peau.

SECTION 12: Informations écologiques

· 12.1 Toxicité

· **Toxicité aquatique:** Pas d'autres informations importantes disponibles.

· **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.

· **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.

· **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.

· Autres indications écologiques:

· Indications générales:

Catégorie de pollution des eaux 2 (D) (classification selon liste): polluant

Ne pas laisser pénétrer dans la nappe phréatique, les eaux ou les canalisations.

Danger pour l'eau potable dès fuite d'une petite quantité dans le sous-sol.

· 12.5 Résultats des évaluations PBT et VPVB

· **PBT:** Non applicable.

· **vPvB:** Non applicable.

· **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

SECTION 13: Considérations relatives à l'élimination

· 13.1 Méthodes de traitement des déchets

· **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.

· Emballages non nettoyés:

· **Recommandation:** Evacuation conformément aux prescriptions légales.

SECTION 14: Informations relatives au transport

· 14.1 No ONU

· **ADR, IMDG, IATA**

UN2319

· 14.2 Nom d'expédition des Nations unies

· **ADR**

2319 HYDROCARBURES TERPÉNIQUES, N.S.A.,
DANGEREUX POUR L'ENVIRONNEMENT

· **IMDG**

TERPENE HYDROCARBONS, N.O.S., MARINE
POLLUTANT

· **IATA**

TERPENE HYDROCARBONS, N.O.S.

(suite page 7)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 15.06.2015

Révision: 15.06.2015

Nom du produit: HISTO-CLEAR

(suite de la page 6)

· 14.3 Classe(s) de danger pour le transport

· ADR, IMDG



· Classe

3 Liquides inflammables.

· Étiquette

3

· IATA



· Class

3 Liquides inflammables.

· Label

3

· 14.4 Groupe d'emballage

· ADR, IMDG, IATA

III

· 14.5 Dangers pour l'environnement:

· Marine Pollutant:

Oui

Signe conventionnel (poisson et arbre)

· Marquage spécial (ADR):

Signe conventionnel (poisson et arbre)

· 14.6 Précautions particulières à prendre par l'utilisateur

Attention: Liquides inflammables.

· Indice Kemler:

30

· No EMS:

F-E,S-D

· 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol 73/78 et au recueil IBC

Non applicable.

· Indications complémentaires de transport:

· ADR

· Quantités limitées (LQ)

5L

· Quantités exceptées (EQ)

Code: E1

Quantité maximale nette par emballage intérieur: 30 ml

Quantité maximale nette par emballage extérieur: 1000 ml

· Catégorie de transport

3

· Code de restriction en tunnels

D/E

· IMDG

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· "Règlement type" de l'ONU:

UN2319, HYDROCARBURES TERPÉNIQUES, N.S.A., DANGEREUX POUR L'ENVIRONNEMENT, 3, III

FR

(suite page 8)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 15.06.2015

Révision: 15.06.2015

Nom du produit: HISTO-CLEAR

(suite de la page 7)

SECTION 15: Informations réglementaires

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
- **Directive 2012/18/UE**
- **Substances dangereuses désignées - ANNEXE I** la substance n'est pas comprise
- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

SECTION 16: Autres informations

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

· **Acronymes et abréviations:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Sicherheitsdatenblatt gemäß 1907/2006/EG, Artikel 31

Druckdatum: 15.06.2015

überarbeitet am: 15.06.2015

ABSCHNITT 1: Bezeichnung des Stoffs bzw. des Gemischs und des Unternehmens

- **1.1 Produktidentifikator**
- **Handelsname:** HISTO-CLEAR
- **Artikelnummer:** 64110-01, 64110-04, 64110-10
- **CAS-Nummer:**
5989-27-5
- **EG-Nummer:**
227-813-5
- **Indexnummer:**
601-029-00-7
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com

Science Services GmbH
Unterhachinger Str. 75
81737 München Germany
Tel: +49(0)89 18 93 668-0
safety@scienceservices.de

24h Giftnotruf Munchen: +49 (0)89 19240
Toxikologische Abteilung der II. Medizinischen Klinik
rechts der Isar, Munchen. - www.toxinfo.org
- **Auskunftgebender Bereich:** Product safety department
- **1.4 Notrufnummer:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

ABSCHNITT 2: Mögliche Gefahren

- **2.1 Einstufung des Stoffs oder Gemischs**
- **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS02 Flamme

Flam. Liq. 3 H226 Flüssigkeit und Dampf entzündbar.



GHS09 Umwelt

Aquatic Acute 1 H400 Sehr giftig für Wasserorganismen.

Aquatic Chronic 1 H410 Sehr giftig für Wasserorganismen mit langfristiger Wirkung.

(Fortsetzung auf Seite 2)

Sicherheitsdatenblatt gemäß 1907/2006/EG, Artikel 31

Druckdatum: 15.06.2015

überarbeitet am: 15.06.2015

Handelsname: HISTO-CLEAR

(Fortsetzung von Seite 1)



GHS07

Skin Irrit. 2 H315 Verursacht Hautreizungen.
Skin Sens. 1 H317 Kann allergische Hautreaktionen verursachen.

- 2.2 Kennzeichnungselemente
- Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008
Der Stoff ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.
- Gefahrenpiktogramme



GHS02 GHS07 GHS09

- Signalwort Achtung
- Gefahrbestimmende Komponenten zur Etikettierung:
(R)-p-Mentha-1,8-dien
- Gefahrenhinweise
H226 Flüssigkeit und Dampf entzündbar.
H315 Verursacht Hautreizungen.
H317 Kann allergische Hautreaktionen verursachen.
H410 Sehr giftig für Wasserorganismen mit langfristiger Wirkung.
- Sicherheitshinweise
P210 Von Hitze/Funken/offener Flamme/heißen Oberflächen fernhalten. Nicht rauchen.
P241 Explosionssgeschützte elektrische Geräte/Lüftungsanlagen/Beleuchtungsanlagen verwenden.
P261 Einatmen von Staub/Rauch/Gas/Nebel/Dampf/Aerosol vermeiden.
P303+P361+P353 BEI KONTAKT MIT DER HAUT (oder dem Haar): Alle beschmutzten, getränkten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen/duschen.
P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).
P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.
- 2.3 Sonstige Gefahren
- Ergebnisse der PBT- und vPvB-Beurteilung
- PBT: Nicht anwendbar.
- vPvB: Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

- 3.1 Chemische Charakterisierung: Stoffe
- CAS-Nr. Bezeichnung
5989-27-5 (R)-p-Mentha-1,8-dien
- Identifikationsnummer(n)
- EG-Nummer: 227-813-5
- Indexnummer: 601-029-00-7

DE

(Fortsetzung auf Seite 3)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 15.06.2015

überarbeitet am: 15.06.2015

Handelsname: HISTO-CLEAR

(Fortsetzung von Seite 2)

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

- **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**
- **Nach Einatmen:**
Reichlich Frischluftzufuhr und sicherheitshalber Arzt aufsuchen.
Bei Bewußtlosigkeit Lagerung und Transport in stabiler Seitenlage.
- **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.
- **Nach Augenkontakt:** Augen bei geöffnetem Lidspalt mehrere Minuten mit fließendem Wasser spülen.
- **Nach Verschlucken:** Bei anhaltenden Beschwerden Arzt konsultieren.
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**
Keine weiteren relevanten Informationen verfügbar.
- **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**
Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:** CO₂, Sand, Löschpulver. Kein Wasser verwenden.
- **Aus Sicherheitsgründen ungeeignete Löschmittel:** Wasser im Vollstrahl
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**
Schutzausrüstung tragen. Ungeschützte Personen fernhalten.
- **6.2 Umweltschutzmaßnahmen:** Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**
Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.
Für ausreichende Lüftung sorgen.
Nicht mit Wasser oder wässrigen Reinigungsmitteln wegspülen.
- **6.4 Verweis auf andere Abschnitte**
Informationen zur sicheren Handhabung siehe Abschnitt 7.
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.
Informationen zur Entsorgung siehe Abschnitt 13.

ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:**
Zündquellen fernhalten - nicht rauchen.
Vor Hitze schützen.
Maßnahmen gegen elektrostatische Aufladung treffen.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.

(Fortsetzung auf Seite 4)

Sicherheitsdatenblatt gemäß 1907/2006/EG, Artikel 31

Druckdatum: 15.06.2015

überarbeitet am: 15.06.2015

Handelsname: HISTO-CLEAR

(Fortsetzung von Seite 3)

- **Weitere Angaben zu den Lagerbedingungen:**
Behälter dicht geschlossen halten.
Vor Hitze und direkter Sonnenbestrahlung schützen.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** Entzündlich
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.
- **8.1 Zu überwachende Parameter**

· Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:
--

5989-27-5 (R)-p-Mentha-1,8-dien

AGW	Langzeitwert: 28 mg/m ³ , 5 ml/m ³ 4(II);DFG, H, Sh, Y
-----	---

- **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.
- **8.2 Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung:**
- **Allgemeine Schutz- und Hygienemaßnahmen:**
Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.
Besmutzte, getränkte Kleidung sofort ausziehen.
Vor den Pausen und bei Arbeitsende Hände waschen.
Berührung mit der Haut vermeiden.
Berührung mit den Augen und der Haut vermeiden.
- **Atemschutz:**
Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition umluftunabhängiges Atemschutzgerät verwenden.
- **Handschutz:**



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

- **Handschuhmaterial**
Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich.
- **Durchdringungszeit des Handschuhmaterials**
Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

(Fortsetzung auf Seite 5)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 15.06.2015

überarbeitet am: 15.06.2015

Handelsname: HISTO-CLEAR

(Fortsetzung von Seite 4)

· **Augenschutz:**

Dichtschließende Schutzbrille

ABSCHNITT 9: Physikalische und chemische Eigenschaften

· **9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**· **Allgemeine Angaben**· **Aussehen:**

Form:	Flüssigkeit
--------------	-------------

Farbe:	Farblos
---------------	---------

Geruch:	Fruchtartig
----------------	-------------

Geruchsschwelle:	Nicht bestimmt.
-------------------------	-----------------

pH-Wert:	Nicht bestimmt.
-----------------	-----------------

· **Zustandsänderung**

Schmelzpunkt/Schmelzbereich:	-74,3 °C
-------------------------------------	----------

Siedepunkt/Siedebereich:	ab 173 °C
---------------------------------	-----------

Flammpunkt:	43 °C
--------------------	-------

Entzündlichkeit (fest, gasförmig):	Nicht anwendbar.
---	------------------

Zündtemperatur:	255 °C
------------------------	--------

Zersetzungstemperatur:	Nicht bestimmt.
-------------------------------	-----------------

Selbstentzündlichkeit:	Nicht bestimmt.
-------------------------------	-----------------

Explosionsgefahr:	Das Produkt ist nicht explosionsgefährlich, jedoch ist die Bildung explosionsgefährlicher Dampf-/Luftgemische möglich.
--------------------------	--

· **Explosionsgrenzen:**

Untere:	0,7 Vol %
----------------	-----------

Obere:	6,1 Vol %
---------------	-----------

Dampfdruck bei 20 °C:	2,3 hPa
------------------------------	---------

Dichte bei 20 °C:	0,848 g/cm ³
--------------------------	-------------------------

Relative Dichte	Nicht bestimmt.
------------------------	-----------------

Dampfdichte	Nicht bestimmt.
--------------------	-----------------

Verdampfungsgeschwindigkeit	Nicht bestimmt.
------------------------------------	-----------------

· **Löslichkeit in / Mischbarkeit mit**

Wasser:	Nicht bzw. wenig mischbar.
----------------	----------------------------

Verteilungskoeffizient (n-Octanol/Wasser):	Nicht bestimmt.
---	-----------------

· **Viskosität:**

Dynamisch:	Nicht bestimmt.
-------------------	-----------------

Kinematisch:	Nicht bestimmt.
---------------------	-----------------

· **Lösemittelgehalt:**

Organische Lösemittel:	100,0 %
-------------------------------	---------

VOC (EU)	100,00 %
-----------------	----------

(Fortsetzung auf Seite 6)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 15.06.2015

überarbeitet am: 15.06.2015

Handelsname: HISTO-CLEAR

(Fortsetzung von Seite 5)

· 9.2 Sonstige Angaben

Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 10: Stabilität und Reaktivität

- **10.1 Reaktivität**
- **10.2 Chemische Stabilität**
- **Thermische Zersetzung / zu vermeidende Bedingungen:**
Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- **10.3 Möglichkeit gefährlicher Reaktionen** Keine gefährlichen Reaktionen bekannt.
- **10.4 Zu vermeidende Bedingungen** Keine weiteren relevanten Informationen verfügbar.
- **10.5 Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **10.6 Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität**

· Einstufungsrelevante LD/LC50-Werte:		
5989-27-5 (R)-p-Mentha-1,8-dien		
Oral	LD50	4400 mg/kg (rat)

- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut** Reizt die Haut und die Schleimhäute.
- **Schwere Augenschädigung/-reizung** Keine Reizwirkung.
- **Sensibilisierung der Atemwege/Haut** Durch Hautkontakt Sensibilisierung möglich.

ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**
Wassergefährdungsklasse 2 (Listeneinstufung): wassergefährdend
Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.
Trinkwassergefährdung bereits beim Auslaufen geringer Mengen in den Untergrund.
- **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.

(Fortsetzung auf Seite 7)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 15.06.2015

überarbeitet am: 15.06.2015

Handelsname: HISTO-CLEAR

(Fortsetzung von Seite 6)

- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

ABSCHNITT 14: Angaben zum Transport

· 14.1 UN-Nummer	
· ADR, IMDG, IATA	UN2319
· 14.2 Ordnungsgemäße UN-Versandbezeichnung	
· ADR	2319 TERPENKOHLENWASSERSTOFFE, N.A.G., UMWELTGEFÄHRDEND
· IMDG	TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT
· IATA	TERPENE HYDROCARBONS, N.O.S.
· 14.3 Transportgefahrenklassen	
· ADR, IMDG	
	 
· Klasse	3 Entzündbare flüssige Stoffe
· Gefahrzettel	3
· IATA	
	
· Class	3 Entzündbare flüssige Stoffe
· Label	3
· 14.4 Verpackungsgruppe	
· ADR, IMDG, IATA	III
· 14.5 Umweltgefahren:	
· Marine pollutant:	Ja Symbol (Fisch und Baum)
· Besondere Kennzeichnung (ADR):	Symbol (Fisch und Baum)
· 14.6 Besondere Vorsichtsmaßnahmen für den Verwender	Achtung: Entzündbare flüssige Stoffe
· Kemler-Zahl:	30
· EMS-Nummer:	F-E,S-D
· 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens 73/78 und gemäß IBC-Code	Nicht anwendbar.
· Transport/weitere Angaben:	
· ADR	
· Begrenzte Menge (LQ)	5L

(Fortsetzung auf Seite 8)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 15.06.2015

überarbeitet am: 15.06.2015

Handelsname: HISTO-CLEAR

(Fortsetzung von Seite 7)

· Freigestellte Mengen (EQ)	Code: E1 Höchste Nettomenge je Innenverpackung: 30 ml Höchste Nettomenge je Außenverpackung: 1000 ml
· Beförderungskategorie	3
· Tunnelbeschränkungscode	D/E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN2319, TERPENKOHLENWASSERSTOFFE, N.A.G., UMWELTGEFÄHRDEND, 3, III

ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
- **Richtlinie 2012/18/EU**
- **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Der Stoff ist nicht enthalten.
- **Nationale Vorschriften:**
- **Technische Anleitung Luft:**

Klasse	Anteil in %
NK	100,0
- **Wassergefährdungsklasse: WGK 2** (Listeneinstufung): wassergefährdend.
- **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

- **Abkürzungen und Akronyme:**
 - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 - IMDG: International Maritime Code for Dangerous Goods
 - IATA: International Air Transport Association
 - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - VOC: Volatile Organic Compounds (USA, EU)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - Flam. Liq. 3: Flammable liquids, Hazard Category 3
 - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 - Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
 - Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
 - Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 15.06.2015

Revisione: 15.06.2015

SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** HISTO-CLEAR
- **Articolo numero:** 64110-01, 64110-04, 64110-10
- **Numero CAS:**
5989-27-5
- **Numeri CE:**
227-813-5
- **Numero indice:**
601-029-00-7
- **1.2 Usi pertinenti identificati della sostanza o miscela e usi sconsigliati** Non sono disponibili altre informazioni.
- **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio
- **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**
- **Produttore/fornitore:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com

Societa Italiana Chimici
Via Rio Nell Ellba 140
00138 Rome, Italy
Tel: 39 06 8800211
Fax: 39 30 06 8815313
Web: www.sichim.com
- **Informazioni fornite da:** Product safety department
- **1.4 Numero telefonico di emergenza:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

- **2.1 Classificazione della sostanza o della miscela**
- **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS02 fiamma

Flam. Liq. 3 H226 Liquido e vapori infiammabili.



GHS09 ambiente

Aquatic Acute 1 H400 Molto tossico per gli organismi acquatici.

Aquatic Chronic 1 H410 Molto tossico per gli organismi acquatici con effetti di lunga durata.



GHS07

Skin Irrit. 2 H315 Provoca irritazione cutanea.

Skin Sens. 1 H317 Può provocare una reazione allergica cutanea.

(continua a pagina 2)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 15.06.2015

Revisione: 15.06.2015

Denominazione commerciale: HISTO-CLEAR

(Segue da pagina 1)

· 2.2 Elementi dell'etichetta**· Etichettatura secondo il regolamento (CE) n. 1272/2008***La sostanza è classificata ed etichettata conformemente al regolamento CLP.***· Pittogrammi di pericolo**

GHS02 GHS07 GHS09

· Avvertenza Attenzione**· Componenti pericolosi che ne determinano l'etichettatura:***(R)-p-menta-1,8-diene***· Indicazioni di pericolo***H226 Liquido e vapori infiammabili.**H315 Provoca irritazione cutanea.**H317 Può provocare una reazione allergica cutanea.**H410 Molto tossico per gli organismi acquatici con effetti di lunga durata.***· Consigli di prudenza***P210 Tenere lontano da fonti di calore/scintille/fiamme libere/superfici riscaldate. - Non fumare.**P241 Utilizzare impianti elettrici/di ventilazione/d'illuminazione/a prova di esplosione.**P261 Evitare di respirare la polvere/i fumi/i gas/la nebbia/i vapori/gli aerosol.**P303+P361+P353 IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliersi di dosso immediatamente tutti gli indumenti contaminati. Sciacquare la pelle/fare una doccia.**P321 Trattamento specifico (vedere su questa etichetta).**P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.***· 2.3 Altri pericoli****· Risultati della valutazione PBT e vPvB****· PBT:** Non applicabile.**· vPvB:** Non applicabile.

SEZIONE 3: Composizione/informazioni sugli ingredienti

· 3.1 Caratteristiche chimiche: Sostanze**· Numero CAS***5989-27-5 (R)-p-menta-1,8-diene***· Numeroli di identificazione****· Numeri CE:** 227-813-5**· Numero indice:** 601-029-00-7

SEZIONE 4: Misure di primo soccorso

· 4.1 Descrizione delle misure di primo soccorso**· Inalazione:***Portare il soggetto in zona molto ben areata e per sicurezza consultare un medico.**Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.***· Contatto con la pelle:** *Lavare immediatamente con acqua e sapone sciacquando accuratamente.***· Contatto con gli occhi:** *Lavare con acqua corrente per alcuni minuti tenendo le palpebre ben aperte.***· Ingestione:** *Se il dolore persiste consultare il medico.***· 4.2 Principali sintomi ed effetti, sia acuti che ritardati** *Non sono disponibili altre informazioni.*

(continua a pagina 3)

Scheda di dati di sicurezza

ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 15.06.2015

Revisione: 15.06.2015

Denominazione commerciale: HISTO-CLEAR

(Segue da pagina 2)

- **4.3 Indicazione della eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**
Non sono disponibili altre informazioni.

SEZIONE 5: Misure antincendio

- **5.1 Mezzi di estinzione**
- **Mezzi di estinzione idonei:** CO₂, sabbia, polvere. Non usare acqua.
- **Mezzi di estinzione inadatti per motivi di sicurezza:** Getti d'acqua
- **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.
- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Non sono richiesti provvedimenti particolari.

SEZIONE 6: Misure in caso di rilascio accidentale

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza**
Indossare equipaggiamento protettivo. Allontanare le persone non equipaggiate.
- **6.2 Precauzioni ambientali:** Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.
- **6.3 Metodi e materiali per il contenimento e per la bonifica:**
Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).
Provvedere ad una sufficiente areazione.
Non dilavare con acqua o detergenti liquidi.
- **6.4 Riferimento ad altre sezioni**
Per informazioni relative ad una manipolazione sicura, vedere capitolo 7.
Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.
Per informazioni relative allo smaltimento vedere Capitolo 13.

SEZIONE 7: Manipolazione e immagazzinamento

- **7.1 Precauzioni per la manipolazione sicura**
Accurata ventilazione/aspirazione nei luoghi di lavoro.
Evitare la formazione di aerosol.
- **Indicazioni in caso di incendio ed esplosione:**
Tenere lontano da fonti di calore, non fumare.
Proteggere dal calore.
Adottare provvedimenti contro cariche elettrostatiche.
- **7.2 Condizioni per l'immagazzinamento sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:**
Mantenere i recipienti ermeticamente chiusi.
Proteggere dal calore e dai raggi diretti del sole.
- **7.3 Usi finali specifici** Non sono disponibili altre informazioni.

SEZIONE 8: Controllo dell'esposizione/protezione individuale

- **Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.
- **8.1 Parametri di controllo**
- **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:** Non Necessario.

(continua a pagina 4)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 15.06.2015

Revisione: 15.06.2015

Denominazione commerciale: HISTO-CLEAR

(Segue da pagina 3)

· **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.

· **8.2 Controlli dell'esposizione**

· **Mezzi protettivi individuali:**

· **Norme generali protettive e di igiene del lavoro:**

Tenere lontano da cibo, bevande e foraggi.

Togliere immediatamente gli abiti contaminati.

Lavarsi le mani prima dell'intervallo o a lavoro terminato.

Evitare il contatto con la pelle.

Evitare il contatto con gli occhi e la pelle.

· **Maschera protettiva:**

Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.

· **Guanti protettivi:**



Guanti protettivi

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.

A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.

Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

· **Materiale dei guanti**

La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro.

· **Tempo di permeazione del materiale dei guanti**

Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.

· **Occhiali protettivi:**



Occhiali protettivi a tenuta

SEZIONE 9: Proprietà fisiche e chimiche

· **9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali**

· **Indicazioni generali**

· **Aspetto:**

Forma: Liquido

Colore: Incolore

· **Odore:** Simile a frutto

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

· **Cambiamento di stato**

Temperatura di fusione/ambito di fusione: -74,3 °C

Temperatura di ebollizione/ambito di ebollizione: ab173 °C

· **Punto di infiammabilità:** 43 °C

· **Infiammabilità (solido, gassoso):** Non applicabile.

(continua a pagina 5)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 15.06.2015

Revisione: 15.06.2015

Denominazione commerciale: HISTO-CLEAR

(Segue da pagina 4)

· Temperatura di accensione:	255 °C
· Temperatura di decomposizione:	Non definito.
· Autoaccensione:	Non definito.
· Pericolo di esplosione:	Prodotto non è esplosivo, è tuttavia possibile la formazione di miscele di vapori/aria esplosive.
· Limiti di infiammabilità:	
Inferiore:	0,7 Vol %
Superiore:	6,1 Vol %
· Tensione di vapore a 20 °C:	2,3 hPa
· Densità a 20 °C:	0,848 g/cm ³
· Densità relativa	Non definito.
· Densità del vapore	Non definito.
· Velocità di evaporazione	Non definito.
· Solubilità in/Miscibilità con acqua:	Poco e/o non miscibile.
· Coefficiente di distribuzione (n-Octanol/acqua):	Non definito.
· Viscosità:	
Dinamica:	Non definito.
Cinematica:	Non definito.
· Tenore del solvente:	
Solventi organici:	100,0 %
VOC (CE)	100,00 %
· 9.2 Altre informazioni	Non sono disponibili altre informazioni.

SEZIONE 10: Stabilità e reattività

- **10.1 Reattività**
- **10.2 Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **10.3 Possibilità di reazioni pericolose** Non sono note reazioni pericolose.
- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.
- **10.6 Prodotti di decomposizione pericolosi:** Non sono noti prodotti di decomposizione pericolosi.

SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta**

· Valori LD/LC50 rilevanti per la classificazione:		
5989-27-5 (R)-p-menta-1,8-diene		
Orale	LD50	4400 mg/kg (rat)

- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea** Irrita la pelle e le mucose.
- **Lesioni oculari gravi/irritazioni oculari gravi** Non irritante.

(continua a pagina 6)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 15.06.2015

Revisione: 15.06.2015

Denominazione commerciale: HISTO-CLEAR

(Segue da pagina 5)

· **Sensibilizzazione respiratoria o cutanea** Può provocare sensibilizzazione a contatto con la pelle.**SEZIONE 12: Informazioni ecologiche**

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**
Pericolosità per le acque classe 2 (D) (Classif. secondo le liste): pericoloso
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature.
Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di piccole quantità di prodotto.
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.

SEZIONE 14: Informazioni sul trasporto

- | | |
|---|---|
| · 14.1 Numero ONU | |
| · ADR, IMDG, IATA | UN2319 |
| · 14.2 Nome di spedizione dell'ONU | |
| · ADR | 2319 IDROCARBURI TERPENICI, N.A.S., PERICOLOSO PER L'AMBIENTE |
| · IMDG | TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT |
| · IATA | TERPENE HYDROCARBONS, N.O.S. |
| · 14.3 Classi di pericolo connesso al trasporto | |
| · ADR, IMDG | |
|   | |
| · Classe | 3 Liquidi infiammabili |
| · Etichetta | 3 |

(continua a pagina 7)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 15.06.2015

Revisione: 15.06.2015

Denominazione commerciale: HISTO-CLEAR

(Segue da pagina 6)

· **IATA**· **Class**

3 Liquidi infiammabili

· **Label**

3

· **14.4 Gruppo di imballaggio**· **ADR, IMDG, IATA**

III

· **14.5 Pericoli per l'ambiente:**· **Marine pollutant:**

Sì

Simbolo (pesce e albero)

· **Marcatura speciali (ADR):**

Simbolo (pesce e albero)

· **14.6 Precauzioni speciali per gli utilizzatori**

Attenzione: Liquidi infiammabili

· **Numero Kemler:**

30

· **Numero EMS:**

F-E,S-D

· **14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL 73/78 ed il codice IBC**

Non applicabile.

· **Trasporto/ulteriori indicazioni:**· **ADR**· **Quantità limitate (LQ)**

5L

· **Quantità esenti (EQ)**

Codice: E1

Quantità massima netta per imballaggio interno: 30 ml

Quantità massima netta per imballaggio esterno: 1000 ml

· **Categoria di trasporto**

3

· **Codice di restrizione in galleria**

D/E

· **IMDG**· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN2319, IDROCARBURI TERPENICI, N.A.S., PERICOLOSO PER L'AMBIENTE, 3, III

SEZIONE 15: Informazioni sulla regolamentazione

· **15.1 Norme e legislazione su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**· **Direttiva 2012/18/UE**· **Sostanze pericolose specificate - ALLEGATO I** La sostanza non è contenuta· **Disposizioni nazionali:**· **Istruzione tecnica aria:**

Classe	quota in %
NC	100,0

(continua a pagina 8)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 15.06.2015

Revisione: 15.06.2015

Denominazione commerciale: HISTO-CLEAR

(Segue da pagina 7)

15.2 Valutazione della sicurezza chimica: Una valutazione della sicurezza chimica non è stata effettuata.**SEZIONE 16: Altre informazioni**

I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.

· Abbreviazioni e acronimi:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

-IT-

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.06.15

개정: 2015.06.15

1 화학제품과 회사에 관한 정보

- **제품 식별자**
- **제품명:** HISTO-CLEAR
- **상품번호:** 64110-01, 64110-04, 64110-10
- **CAS-번호**
5989-27-5
- **EC 의번호:**
227-813-5
- **색인 번호:**
601-029-00-7
- **해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도** 추가적인 정보가 존재하지 않습니다.
- **제품의 권고 용도와 사용상의 제한:** 실험 실 화 학 품
- **안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보**
- **제조자/수입자/유통업자 정보:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com

Samchang Commercial Co., Ltd.
Yeo Eui Do
PO Box 1110
Seoul, Korea
Tel: 82 2 703 3040
Fax: 82 2 717 3298
- **추가적인 정보 획득 가능:** Product safety department
- **비상연락 전화번호:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 유해성.위험성

- **순물질 또는 혼합물의 분류**



화염

인화성 액체 구분3 H226 인화성 액체 및 증기



환경

수생환경유해성-급성 구분1 H400 수생생물에 매우 유독함
수생환경유해성-만성 구분1 H410 장기적인 영향에 의해 수생생물에게 매우 유독함



피부 부식성/자극성 구분2 H315 피부에 자극을 일으킴
피부과민성 구분1 H317 알레르기성 피부 반응을 일으킬 수 있음

(2 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.06.15

개정: 2015.06.15

제품명: HISTO-CLEAR

(1 쪽부터계속)

· 라벨표기 요소

· GHS 라벨 요소

본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· 그림문자



GHS02 GHS07 GHS09

· 신호어 경고

· 상표상에명확히위험성이표시된성분:

(R)-p-mentha-1,8-diene

· 유해·위험 문구

인화성 액체 및 증기

피부에 자극을 일으킴

알레르기성 피부 반응을 일으킬 수 있음

장기적인 영향에 의해 수생생물에게 매우 유독함

· 예방조치 문구

열·스파크·화염·고열로부터 멀리하시오 – 금연

폭발 방지용 전기·환기·조명·장비를 사용하시오.

(분진·흙·가스·미스트·증기·스프레이)의 흡입을 피하시오.

피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나제거하시오. 피부를 물로 씻으시오/샤워하시오.

(라벨 참조) 처치를 하시오.

현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

· 기타 유해성

· PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과

· PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.

· vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.

3 구성성분의 명칭 및 함유량

· 화 학 적 특 성: 화학물질

· CAS-번호표시

5989-27-5 (R)-p-mentha-1,8-diene

· 식별 번호

· EC 의번호: 227-813-5

· 색인 번호: 601-029-00-7

4 응급조치 요령

· 응급조치요령 내용

· 흡입했을 때:

신 선 한 공 기 를 쐬고 나서 반드시 의 료진의 도움을 구한다.

환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.

· 피부에 접촉했을 때:

즉시물과비누로씻고잘행군다.

· 눈에 들어갔을 때:

흐르는 물에 눈을 몇분동안 씻어낸다.

· 먹었을 때:

증상이 지 속될 경우에는 의사와 상 담 한 다.

· 기타 의사의 주의사항:

· 가장 중요한 급·만성 증상 및 영향 추가적인 정보가 존재하지 않습니다.

(3 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.06.15

개정: 2015.06.15

제품명: HISTO-CLEAR

- **즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후** 추가적인 정보가 존재하지 않습니다. (2 쪽부터계속)

5 폭발.화재시 대처방법

- **소화제**
- **적절한 소화제:** 이 산 화 탄 소, 모 래, 석 회 가 루를 사용하고, 물 을 사 용 하 지 않 는 다.
- **부적절한 소화제:** 폴제트용 물
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.
- **소방관에 대한 권고사항**
- **화재 진압 시 착용할 보호구 및 예방조치:** 특 별 한 조 치 가 필요없음.

6 누출 사고 시 대처방법

- **개인적 예방조치, 보호장비 및 응급처치 절차** 안 전 장 비 착 용하고, 무 방 비 의 사 람 은 격 리 시킨다.
- **환경 관련 예방조치:** 하수도망/해수면위의물/지하수로도달하지않게한다.
- **밀폐 및 정화 방법과 소재:**
액 체 가 혼 합 된 물 질 (모 래, 규 조 토, 산 성 결 합 물, 일 반 결 합 물, 톱 밥)에 흡입되도록 한다.
충분한 환기가 되도록 한다.
물 이 나 묽 은 세 척 제 로 씻 어 내 지 마 십시 오
- **타 섹션 참조**
안 전 관 리 에 대 한 정보 는 제 7 장 을 참고하시오.
개 인 보 호 장 비 에 대 한 정보 는 제 8 장 을 참고하시오.
쓰 레 기 처 리 에 대 한 정보 는 제 13 장 을 참고하시오.

7 취급 및 저장방법

- **취급:**
- **안전 취급을 위한 예방조치**
작업장에서는통풍이잘되고/습기제거가잘되게주의한다.
연무질이형성되는것을피한다.
- **화재 및 폭발 사고 예방대책에 관한 정보:**
발 화 요 소 는 멀 리 둔 다-금 연.
열로부터보호한다.
정 전 기 의 충 전 으로부터 보호한다.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 특 별 한 요 구 사 항 이 없 음.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필 요 없 음
- **보 관 조 건 에 관 한 추 가 적 인 정보:**
용기를새지않게밀폐한채보관한다.
열이나직사광선으로부터보호한다.
- **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

8 누출방지 및 개인보호구

- **첨단시설 디자인에 대한 추가정보:** 더 이 상 의 자 료 는 없 음. 항 목 7 을 참 고 하 시 오.
- **통제 변수**
- **화학물질의 누출기준, 생물학적 누출기준 등:** 생략
- **추 가 정 보:** 제 조 할 당 시 에 유 효 한 목 록 을 기 초 로 사 용 했 다.

(4 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.06.15

개정: 2015.06.15

제품명: HISTO-CLEAR

(3 쪽부터계속)

- **노출 통제**
- **개인 보호구**
- **일반적보호조치및위생조치:**
 - 식료 품, 음 료 수와 사 료로 부 터 멀 리 떨 어뜨 려 놓 는 다.
 - 더 러 워 지 거 나 음 료 수 가 물 은 옷 은 즉 시 탈 의 한 다.
 - 휴 식 전 이 나 작 업 이 끝 날 때 마다 손 을 씻 는 다.
 - 피 부와 의 접 촉 을 피 한 다.
 - 눈 과 피 부와 의 접 촉 은 피 한 다.
- **호흡기 보호:**
 - 단 시 간 또 는 경 미 한 오 염 의 경 우 에 는 호 흡 여 과 기 를 사 용 한 다. 심 각 한 또 는 장 기 간 노 출 시 에 는 호 흡 보 호 장 비 를 사 용 한 다.
- **손 보호:**



보 호 용 장 갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.
테 스 트 를 하 지 않 았 기 때 문 에 제 품 / 조 제 / 화 학 혼 합 물 에 적 합 한 장 갑 재 질 에 대 한 추 천 이 없 다.
투 과 시 간, 침 투 율 과 저 하 를 고 려 해 서 장 갑 재 료 를 선택한다.

- **장갑의재료**
 - 적 합 한 장 갑 의 선 정 은 재 질 차 이 뿐 아 니 라 품 질 기 준 의 차 이 도 고 려 하 여 이 루 어 져 야 하 고 제 조 업 자 에 따 라 서 도 다 르 게 선 정 되 어 야 한 다.
- **장 갑 재 료 의 투 과 시 간** 정 확 한 관 통 시 간 은 보 호 장 갑 제 조 자 에 의 하 여 인 지 되 고, 준 수 되 어 야 한 다.
- **눈 보호:**



팍 조 이 는 보 안 경

9 물리화학적 특성

· 기본 물리 및 화학적 특성에 대한 정보

· 일반정보

· 외형

물리적 상태: 액체
색: 색소가없는
· 냄새: 과 일 종 류 의
· 후각역치 알 맞 지 않 다.

· pH: 알 맞 지 않 다.

· 상태변화

녹는점/어는점: -74.3 °C
초기 끓는점과 끓는점 범위: ab173 °C

· 인화점: 43 °C

· 인화성(고체, 기체): 해당사항 없음.

· 점화온도: 255 °C

· 분해 온도: 알 맞 지 않 다.

(5 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.06.15

개정: 2015.06.15

제품명: HISTO-CLEAR

(4 쪽부터계속)

· 자기점화:	알맞지않다.
· 폭발위험:	이제품은폭발위험성이없지만, 폭발가능성이있는증기화합물/공기화합물의형성가능성이있다.
· 인화 또는 폭발 범위의 상한/하한 아래로:	0.7 Vol %
위로:	6.1 Vol %
· 증기압 의경우 20 °C:	2.3 hPa
· 밀도 의경우 20 °C:	0.848 g/cm ³
· 비중:	알맞지않다.
· 증기밀도:	알맞지않다.
· 증발 속도:	알맞지않다.
· 용해도: 물:	각각의경우에따라서는거의혼합할수없는
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도:	
· 역학성:	알맞지않다.
· 동점성:	알맞지않다.
· 용매내용물 유기용매:	100.0 %
VOC (EU)	100.00 %
· 기타 정보	추가적인 정보가 존재하지 않습니다.

10 안정성 및 반응성

- 반응성
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에따라사용할경우해체는없다
- 유해반응 가능성 위험한반응으로는알려지지않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은알려지지않았다.

11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:

· LD/LC50-수치에 따른 분류:
5989-27-5 (R)-p-mentha-1,8-diene
구강의 LD50 4400 mg/kg (rat)

- 입차적 자극 효과:
- 피부 부식성 또는 자극성: 피부와점막을자극한다.
- 심한 눈 손상 또는 자극성: 무자극.
- 감각화: 피부접촉을통하여감각화가능성이있다.

KR

(6 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.06.15

개정: 2015.06.15

제품명: HISTO-CLEAR

(5 쪽부터계속)

12 환경에 미치는 영향

- 독성
- 수생독성: 추가적인 정보가 존재하지 않습니다.
- 지속성 및 분해성 추가적인 정보가 존재하지 않습니다.
- 환경 시스템에서의 행동:
- 생물농축 잠재성 추가적인 정보가 존재하지 않습니다.
- 토양내 이동성 추가적인 정보가 존재하지 않습니다.
- 추가적인 생태학 정보:
- 일반 특징:
 - 수질오염등급 2 (목록분류): 수질오염이된
 - 지하수나, 하천으로또는하수도망에도달하지않게한다.
 - 지하수로경미한양이유입되었을경우엔이미식수오염상태이다
- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.
- 기타 부작용 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

- 폐기물 처리 방법
- 권고: 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.
- 비위생적 포장:
- 권고: 당국의지침에입각한쓰레기처리.

14 운송에 필요한 정보

- 유엔 번호
- ADR, IMDG, IATA UN2319
- UN 적정 선적명
- ADR 2319 TERPENE HYDROCARBONS, N.O.S., ENVIRONMENTALLY HAZARDOUS
- IMDG TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT
- IATA TERPENE HYDROCARBONS, N.O.S.
- 교통 위험 클래스
- ADR, IMDG
- 

- 등급 3 발화성용액
- 위험물 라벨 3

(7 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.06.15

개정: 2015.06.15

제품명: HISTO-CLEAR

(6 쪽부터계속)

· IATA



· Class

3 발화성용액

· Label

3

· 용기등급

· ADR, IMDG, IATA

III

· 환경적 유해물질:

· 해양오염물질:

네

심벌 (물고기와 나무)

· 특수 마킹 (ADR):

심벌 (물고기와 나무)

· 이용자 특별 예방조치

경고: 발화성용액

· 위험 코드:

30

· EMS-번호:

F-E,S-D

· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송

해당사항 없음.

· 운 송/추가 정보:

· ADR

· 한정 수량 (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· 운송 구분

3

· 터널 제한 코드

D/E

· IMDG

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· UN "모범 규제":

UN2319, TERPENE HYDROCARBONS, N.O.S., ENVIRONMENTALLY HAZARDOUS, 3, III

15 법적 규제현황

· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률

· Korean Existing Chemical Inventory

5989-27-5 (R)-p-mentha-1,8-diene

KE-24397

· GHS 라벨 요소

본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

(8 쪽에계속)

안전지침서

제31조의 1907/2006/EC에 따라

기압점: 2015.06.15

개정: 2015.06.15

제품명: HISTO-CLEAR

(7 쪽부터계속)

· 위험 도표**· 표지어 경고****· 상표상에명확히위험성이표시된성분:**

(R)-p-mentha-1,8-diene

· 위험 문구

인화성 액체 및 증기
 피부에 자극을 일으킴
 알레르기성 피부 반응을 일으킬 수 있음
 장기적인 영향에 의해 수생생물에게 매우 유독함

· 주의 문구

열·스파크·화염·고열로부터 멀리하시오 – 금연
 폭발 방지용 전기·환기·조명·장비를 사용하시오.
 (분진·흙·가스·미스트·증기·스프레이)의 흡입을 피하시오.
 피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나제거하시오. 피부를 물로 씻으시오/샤워하시오.
 (라벨 참조) 처치를 하시오.
 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출
· 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음

16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은
 기술하지않았으며계약적인법률관계에기반을두고있지도않다

· 최초 작성일자: 2015.06.15**· 개정 횟수 및 최종 개정일자:** 1 / 2015.06.15**· 약어와 두문자어:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 인화성 액체 구분3: Flammable liquids, Hazard Category 3
 피부 부식성/자극성 구분2: Skin corrosion/irritation, Hazard Category 2
 피부과민성 구분1: Sensitisation - Skin, Hazard Category 1
 수생환경유해성-급성 구분1: Hazardous to the aquatic environment - AcuteHazard, Category 1
 수생환경유해성-만성 구분1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Ficha de datos de seguridad según 1907/2006/CE, Artículo 31

fecha de impresión 15.06.2015

Revisión: 15.06.2015

SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

· 1.1 Identificador del producto

· **Nombre comercial:** HISTO-CLEAR

· **Número del artículo:** 64110-01, 64110-04, 64110-10

· **Número CAS:**

5989-27-5

· **Número CE:**

227-813-5

· **Número de clasificación:**

601-029-00-7

· **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**

No existen más datos relevantes disponibles.

· **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio

· **1.3 Datos del proveedor de la ficha de datos de seguridad**

· **Fabricante/distribuidor:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

Aname

C/ Perez Galdos no. 2

28693 Quijorna

Madrid, Spain

Tel: +34.91.816.89.50

Fax: +34.91.816.85.94

email: ventas@aname.es

· **Área de información:** Product safety department

· **1.4 Teléfono de emergencia:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SECCIÓN 2: Identificación de los peligros

· **2.1 Clasificación de la sustancia o de la mezcla**

· **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS02 llama

Flam. Liq. 3

H226 Líquidos y vapores inflamables.



GHS09 medio ambiente

Aquatic Acute 1 H400 Muy tóxico para los organismos acuáticos.

Aquatic Chronic 1 H410 Muy tóxico para los organismos acuáticos, con efectos nocivos duraderos.



GHS07

(se continua en página 2)

Ficha de datos de seguridad según 1907/2006/CE, Artículo 31

fecha de impresión 15.06.2015

Revisión: 15.06.2015

Nombre comercial: HISTO-CLEAR

(se continua en página 1)

Skin Irrit. 2 H315 Provoca irritación cutánea.
Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.

· 2.2 Elementos de la etiqueta

· Etiquetado con arreglo al Reglamento (CE) n° 1272/2008

La sustancia se ha clasificado y etiquetado de conformidad con el reglamento CLP.

· Pictogramas de peligro



GHS02 GHS07 GHS09

· Palabra de advertencia Atención

· Componentes peligrosos a indicar en el etiquetaje:

(R)-p-menta-1,8-dieno

· Indicaciones de peligro

H226 Líquidos y vapores inflamables.

H315 Provoca irritación cutánea.

H317 Puede provocar una reacción alérgica en la piel.

H410 Muy tóxico para los organismos acuáticos, con efectos nocivos duraderos.

· Consejos de prudencia

P210 Mantener alejado de fuentes de calor, chispas, llama abierta o superficies calientes. - No fumar.

P241 Utilizar un material eléctrico, de ventilación o de iluminación/antideflagrante.

P261 Evitar respirar el polvo/el humo/el gas/la niebla/los vapores/el aerosol.

P303+P361+P353 EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitarse inmediatamente las prendas contaminadas. Aclararse la piel con agua o ducharse.

P321 Se necesita un tratamiento específico (ver en esta etiqueta).

P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

· 2.3 Otros peligros

· Resultados de la valoración PBT y mPmB

· PBT: No aplicable.

· mPmB: No aplicable.

SECCIÓN 3: Composición/información sobre los componentes

· 3.1 Caracterización química: Sustancias

· Denominación N° CAS

5989-27-5 (R)-p-menta-1,8-dieno

· Número(s) de identificación

· Número CE: 227-813-5

· Número de clasificación: 601-029-00-7

SECCIÓN 4: Primeros auxilios

· 4.1 Descripción de los primeros auxilios

· En caso de inhalación del producto:

Suministrar suficiente aire fresco y, para mayor seguridad, consultar el médico.

Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.

· En caso de contacto con la piel: Lavar inmediatamente con agua y jabón y enjuagar bien.

(se continua en página 3)

Ficha de datos de seguridad según 1907/2006/CE, Artículo 31

fecha de impresión 15.06.2015

Revisión: 15.06.2015

Nombre comercial: HISTO-CLEAR

(se continua en página 2)

- **En caso de con los ojos:** Limpiar los ojos abiertos durante varios minutos con agua corriente.
- **En caso de ingestión:** Consultar un médico si los trastornos persisten.
- **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.
- **4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente** No existen más datos relevantes disponibles.

SECCIÓN 5: Medidas de lucha contra incendios

- **5.1 Medios de extinción**
- **Sustancias extintoras apropiadas:** CO₂, arena, polvo extintor. No utilizar agua.
- **Sustancias extintoras inapropiadas por razones de seguridad:** Agua a pleno chorro
- **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.
- **5.3 Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** No se requieren medidas especiales.

SECCIÓN 6: Medidas en caso de vertido accidental

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia**
Llevar puesto equipo de protección. Mantener alejadas las personas sin protección.
- **6.2 Precauciones relativas al medio ambiente:**
Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**
Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).
Asegurar suficiente ventilación.
No enjuagar con agua ni productos de limpieza acuosos.
- **6.4 Referencia a otras secciones**
Ver capítulo 7 para mayor información sobre una manipulación segura.
Ver capítulo 8 para mayor información sobre el equipo personal de protección.
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.
Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:**
Mantener alejadas las fuentes de encendido. No fumar.
Proteger del calor.
Tomar medidas contra las cargas electrostáticas.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**
Mantener el recipiente cerrado herméticamente.
Proteger del calor y de la luz directa del sol.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

ES

(se continua en página 4)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 15.06.2015

Revisión: 15.06.2015

Nombre comercial: HISTO-CLEAR

(se continua en página 3)

SECCIÓN 8: Controles de exposición/protección individual

· **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**

Sin datos adicionales, ver punto 7.

· **8.1 Parámetros de control**

· **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:**

5989-27-5 (R)-p-menta-1,8-dieno

LEP	Valor de corta duración: 220* mg/m ³ , 40* ppm
	Valor de larga duración: 110* mg/m ³ , 20* ppm
	*Propuesta de modificación, Sen

· **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.

· **8.2 Controles de la exposición**

· **Equipo de protección individual:**

· **Medidas generales de protección e higiene:**

Mantener alejado de alimentos, bebidas y alimentos para animales.

Quitarse de inmediato la ropa ensuciada o impregnada.

Lavar las manos antes de las pausas y al final del trabajo.

Evitar el contacto con la piel.

Evitar el contacto con los ojos y la piel.

· **Protección respiratoria:**

Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.

· **Protección de manos:**



Guantes de protección

El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.

Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.

Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

· **Material de los guantes**

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro.

· **Tiempo de penetración del material de los guantes**

El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

· **Protección de ojos:**



Gafas de protección herméticas

SECCIÓN 9: Propiedades físicas y químicas

· **9.1 Información sobre propiedades físicas y químicas básicas**

· **Datos generales**

· **Aspecto:**

Forma:

Líquido

(se continua en página 5)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 15.06.2015

Revisión: 15.06.2015

Nombre comercial: HISTO-CLEAR

(se continua en página 4)

· Color:	Incoloro
· Olor:	Similar al de las frutas
· Umbral olfativo:	No determinado.
· valor pH:	No determinado.
· Cambio de estado	
Punto de fusión /campo de fusión:	-74,3 °C
Punto de ebullición /campo de ebullición:	ab173 °C
· Punto de inflamación:	43 °C
· Inflamabilidad (sólido, gaseiforme):	No aplicable.
· Temperatura de ignición:	255 °C
· Temperatura de descomposición:	No determinado.
· Autoinflamabilidad:	No determinado.
· Peligro de explosión:	El producto no es explosivo; sin embargo, pueden formarse mezclas explosivas de vapor / aire.
· Límites de explosión:	
Inferior:	0,7 Vol %
Superior:	6,1 Vol %
· Presión de vapor a 20 °C:	2,3 hPa
· Densidad a 20 °C:	0,848 g/cm ³
· Densidad relativa	No determinado.
· Densidad de vapor	No determinado.
· Velocidad de evaporación	No determinado.
· Solubilidad en / miscibilidad con agua:	Poco o no mezclable.
· Coefficiente de reparto (n-octanol/agua):	No determinado.
· Viscosidad:	
Dinámica:	No determinado.
Cinemática:	No determinado.
· Concentración del disolvente:	
Disolventes orgánicos:	100,0 %
VOC (CE)	100,00 %
· 9.2 Información adicional	No existen más datos relevantes disponibles.

SECCIÓN 10: Estabilidad y reactividad

- **10.1 Reactividad**
- **10.2 Estabilidad química**
- **Descomposición térmica / condiciones que deben evitarse:** No se descompone al emplearse adecuadamente.
- **10.3 Posibilidad de reacciones peligrosas** No se conocen reacciones peligrosas.
- **10.4 Condiciones que deben evitarse** No existen más datos relevantes disponibles.
- **10.5 Materiales incompatibles:** No existen más datos relevantes disponibles.
- **10.6 Productos de descomposición peligrosos:** No se conocen productos de descomposición peligrosos.

ES

(se continua en página 6)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 15.06.2015

Revisión: 15.06.2015

Nombre comercial: HISTO-CLEAR

(se continua en página 5)

SECCIÓN 11: Información toxicológica

· 11.1 Información sobre los efectos toxicológicos

· Toxicidad aguda

· Valores LD/LC50 (dosis letal /dosis letal = 50%) relevantes para la clasificación:

5989-27-5 (R)-p-menta-1,8-dieno

Oral	LD50	4400 mg/kg (rat)
------	------	------------------

· Efecto estimulante primario:

· Corrosión o irritación cutáneas Irrita la piel y las mucosas.

· Lesiones o irritación ocular graves No produce irritaciones.

· Sensibilización respiratoria o cutánea Posible sensibilización al entrar en contacto con la piel.

SECCIÓN 12: Información ecológica

· 12.1 Toxicidad

· Toxicidad acuática: No existen más datos relevantes disponibles.

· 12.2 Persistencia y degradabilidad No existen más datos relevantes disponibles.

· 12.3 Potencial de bioacumulación No existen más datos relevantes disponibles.

· 12.4 Movilidad en el suelo No existen más datos relevantes disponibles.

· Indicaciones medioambientales adicionales:

· Indicaciones generales:

Nivel de riesgo para el agua 2 (clasificación de listas): peligroso para el agua

No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.

Una cantidad mínima vertida en el subsuelo ya representa un peligro para el agua potable.

· 12.5 Resultados de la valoración PBT y mPmB

· PBT: No aplicable.

· mPmB: No aplicable.

· 12.6 Otros efectos adversos No existen más datos relevantes disponibles.

SECCIÓN 13: Consideraciones relativas a la eliminación

· 13.1 Métodos para el tratamiento de residuos

· Recomendación: No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.

· Embalajes sin limpiar:

· Recomendación: Eliminar conforme a las disposiciones oficiales.

SECCIÓN 14: Información relativa al transporte

· 14.1 Número UN

· ADR, IMDG, IATA

UN2319

· 14.2 Designación oficial de transporte de las Naciones Unidas

· ADR

2319 HIDROCARBUROS TERPÉNICOS, N.E.P.,
PELIGROSO PARA EL MEDIO AMBIENTE

· IMDG

TERPENE HYDROCARBONS, N.O.S., MARINE
POLLUTANT

· IATA

TERPENE HYDROCARBONS, N.O.S.

(se continua en página 7)

Ficha de datos de seguridad según 1907/2006/CE, Artículo 31

fecha de impresión 15.06.2015

Revisión: 15.06.2015

Nombre comercial: HISTO-CLEAR

(se continua en página 6)

· 14.3 Clase(s) de peligro para el transporte

· ADR, IMDG



· Clase

3 Líquidos inflamables

· Etiqueta

3

· IATA



· Class

3 Líquidos inflamables

· Label

3

· 14.4 Grupo de embalaje

· ADR, IMDG, IATA

III

· 14.5 Peligros para el medio ambiente:

· Contaminante marino:

Sí

Símbolo (pez y árbol)

· Marcado especial (ADR):

Símbolo (pez y árbol)

· 14.6 Precauciones particulares para los usuarios

· Número Kemler:

30

· Número EMS:

F-E,S-D

· 14.7 Transporte a granel con arreglo al anexo II del
Convenio Marpol 73/78 y del Código IBC

No aplicable.

· Transporte/datos adicionales:

· ADR

· Cantidades limitadas (LQ)

5L

· Cantidades exceptuadas (EQ)

Código: E1

Cantidad neta máxima por envase interior: 30 ml

Cantidad neta máxima por embalaje exterior: 1000 ml

· Categoría de transporte

3

· Código de restricción del túnel

D/E

· IMDG

· Limited quantities (LQ)

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· "Reglamentación Modelo" de la UNECE:

UN2319, HIDROCARBUROS TERPÉNICOS, N.E.P.,
PELIGROSO PARA EL MEDIO AMBIENTE, 3, III

ES

(se continua en página 8)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 15.06.2015

Revisión: 15.06.2015

Nombre comercial: HISTO-CLEAR

(se continua en página 7)

SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
- **Directiva 2012/18/UE**
- **Sustancias peligrosas nominadas - ANEXO I** No contiene la sustancia.
- **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

· **Abreviaturas y acrónimos:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1