

Acetic Acid

Version Revision Date: SDS Number: Date of last issue: -
1.0 05/16/2023 150000124846 Date of first issue: 05/16/2023
PRD SDSUS / Z8 / 0001

SECTION 1. IDENTIFICATION

Product name : Acetic Acid
Product code : 43823-00, P4382300

Manufacturer or supplier's details

Company name of supplier : Eastman Chemical Company
Address : 200 South Wilcox Drive
 Kingsport TN 37660-5280
Telephone : (423) 229-2000
Emergency telephone : CHEMTREC: +1-800-424-9300, +1-703-527-3887 CCN7321

Recommended use of the chemical and restrictions on use

Recommended use : Raw material
Restrictions on use : None known.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids : Category 3
Acute toxicity (Inhalation) : Category 4
Skin corrosion : Category 1A
Serious eye damage : Category 1

GHS label elements

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H226 Flammable liquid and vapor.
 H314 Causes severe skin burns and eye damage.
 H332 Harmful if inhaled.

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Precautionary Statements : **Prevention:**

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

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

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

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing mist or vapors.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Components**

Chemical name	CAS-No.	Concentration (% w/w)
acetic acid	64-19-7	>= 90 - <= 100
Acetic anhydride	108-24-7	>= 1 - < 5

Eastman is committed to the safety, health and environment of our employees, our customers, and the communities we operate within. As part of this commitment, Eastman's Safety Data Sheets (SDS) are

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prepared in accordance with all applicable national and local regulations. The compositions of our documents reflect these requirements which include, but are not limited to, requirements under the Globally Harmonized System of Classification and Labeling (GHS). These compositions commonly involve the use of ranges versus specific analytical values. If you require a composition that is more specific, please refer to the Certificate of Analysis, sales specification, or contact your Customer Service Representative.

SECTION 4. FIRST AID MEASURES

- | | | |
|---|---|--|
| If inhaled | : | Move to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Treat symptomatically.
If symptoms persist, call a physician. |
| In case of skin contact | : | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Wash contaminated clothing before re-use.
Call a physician or poison control center immediately.
Thoroughly clean shoes before reuse. |
| In case of eye contact | : | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Call a physician or poison control center immediately. |
| If swallowed | : | Seek medical advice.
Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person. |
| Most important symptoms and effects, both acute and delayed | : | Irritation
Pain
Redness
Harmful if inhaled.
Causes severe skin burns and eye damage.
Causes serious eye damage. |
| Notes to physician | : | Treat symptomatically. |

SECTION 5. FIRE-FIGHTING MEASURES

- | | | |
|---------------------------------------|---|---|
| Suitable extinguishing media | : | Carbon dioxide (CO ₂)
Dry chemical
Water spray |
| Unsuitable extinguishing media | : | Water spray jet |
| Specific hazards during fire fighting | : | Water may be ineffective.
The product will float on water and can be reignited on surface water. |

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acetic acid	64-19-7	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		TWA	10 ppm 25 mg/m3	NIOSH REL
		ST	15 ppm 37 mg/m3	NIOSH REL
		TWA	10 ppm 25 mg/m3	OSHA Z-1
		TWA	10 ppm 25 mg/m3	OSHA P0
Acetic anhydride	108-24-7	TWA	1 ppm	ACGIH
		STEL	3 ppm	ACGIH
		C	5 ppm 20 mg/m3	NIOSH REL
		TWA	5 ppm 20 mg/m3	OSHA Z-1
		C	5 ppm 20 mg/m3	OSHA P0

Engineering measures : Ensure adequate ventilation.

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

Remarks : Wear suitable gloves.

Eye protection : Safety glasses

Protective measures : Remove respiratory and skin/eye protection only after vapors have been cleared from the area.
Ensure that eye flushing systems and safety showers are located close to the working place.
Use personal protective equipment as required.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : clear

Odor : vinegar-like

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Odor Threshold	:	not determined
pH	:	not determined
Melting point/freezing point	:	not determined
Boiling point/boiling range	:	not determined
Flash point	:	106 °F / 41 °C
		Method: Setaflash closed cup
Evaporation rate	:	not determined
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Vapor pressure	:	not determined
Relative vapor density	:	not determined
Solubility(ies)		
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	not determined
Viscosity		
Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	not determined
Explosive properties	:	No data available
Oxidizing properties	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Stable Hazardous decomposition products formed under fire conditions.
Conditions to avoid	:	Heat, flames and sparks.

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Incompatible materials : Oxidizing agents

Hazardous decomposition products : Carbon dioxide (CO₂)
Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if inhaled.

Product:

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Components:**acetic acid:**

Acute oral toxicity : LD50 Oral (Rat): 3,320 mg/kg

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks : No data available

Components:**acetic acid:**

Species : Rabbit

Exposure time : 24 h

Result : Corrosive

Acetic anhydride:

Species : Rabbit

Exposure time : 24 h

Result : Corrosive

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks : No data available

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Repeated dose toxicity**Product:**

Remarks : No data available

Components:**acetic acid:**

Species : Rat
NOAEL : 290 mg/kg
Application Route : Oral Study

Species : Rat
NOAEL : 30 mg/kg
Application Route : Dermal Study

Acetic anhydride:

Species : Rat
 : 25 ppm
Application Route : Inhalation study:
Exposure time : 14 d

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Experience with human exposure**Product:**

Inhalation : Remarks: Harmful if inhaled.

Skin contact : Remarks: Causes severe skin burns.

Eye contact : Remarks: Causes serious eye damage.

Ingestion : Remarks: None known.

Further information**Product:**

Remarks : None known.

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SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****acetic acid:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 300.82 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (daphnid): > 300.82 mg/l
aquatic invertebrates Exposure time: 48 h

Toxicity to algae/aquatic : EC50 (Chlorella pyrenoidosa): 300.82 mg/l
plants Exposure time: 72 h

Acetic anhydride:

Toxicity to fish : LC50 (Fish): 300.82 mg/l
Exposure time: 96 h
Remarks: Read-across from a similar material

Toxicity to daphnia and other : EC50 (daphnid): 300.82 mg/l
aquatic invertebrates Exposure time: 48 h
Remarks: Read-across from a similar material

Toxicity to algae/aquatic : EC50 (Chlorella pyrenoidosa): 300.82 mg/l
plants Exposure time: 72 h
Remarks: Read-across from a similar material

Persistence and degradability**Components:****acetic acid:**

Biodegradability : Result: Readily biodegradable.
Biodegradation: 96 %
Exposure time: 20 d

Biochemical Oxygen De- : BOD-5:
mand (BOD) 340 - 880 mg/g

BOD-20:
900 mg/g

Chemical Oxygen Demand : 1,030 mg/g
(COD)

Acetic anhydride:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 96 %
Exposure time: 20 d
Remarks: Read-across from a similar material

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Bioaccumulative potential**Components:****acetic acid:**

Bioaccumulation : Bioconcentration factor (BCF): 3.16

Partition coefficient: n-octanol/water : Pow: 0.49
log Pow: -0.31

Mobility in soil**Components:****acetic acid:**

Distribution among environmental compartments : log Koc: 0.062
Method: QSAR model

Acetic anhydride:

Distribution among environmental compartments : log Koc: 0.146
Method: QSAR model
Remarks: Read-across from a similar material

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION**International Regulations****IATA-DGR**

UN/ID No. : UN 2789

Proper shipping name : Acetic acid, glacial

Class : 8

Subsidiary risk : 3

Packing group : II

Labels : Corrosive, Flammable Liquids

Packing instruction (cargo aircraft) : 855

Packing instruction (passenger aircraft) : 851

IMDG-Code

UN number : UN 2789

Proper shipping name : ACETIC ACID, GLACIAL

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Class	: 8
Subsidiary risk	: 3
Packing group	: II
Labels	: 8 (3)
EmS Code	: F-E, S-C
Marine pollutant	: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation**49 CFR**

UN/ID/NA number	: UN 2789
Proper shipping name	: Acetic acid, glacial

Class	: 8
Subsidiary risk	: 3
Packing group	: II
Labels	: CORROSIVE, FLAMMABLE LIQUID
ERG Code	: 132
Marine pollutant	: no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
acetic acid	64-19-7	5000	5235

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

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TCSI : On the inventory, or in compliance with the inventory

TSCA : All substances listed as active on the TSCA inventory

AIC : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

ENCS : On the inventory, or in compliance with the inventory

ISHL : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

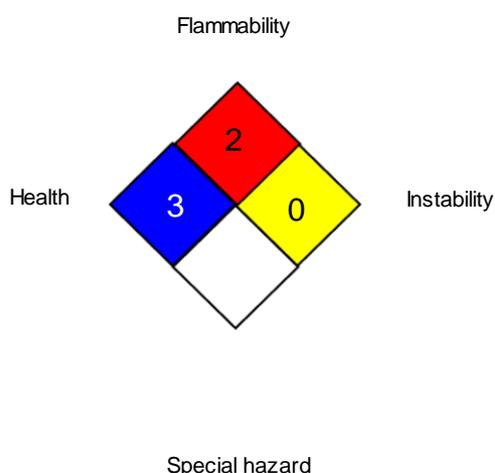
IECSC : On the inventory, or in compliance with the inventory

TECI : On the inventory, or in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION**Further information****NFPA 704:****HMIS® IV:**

HEALTH	/	3
FLAMMABILITY		2
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

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NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
NIOSH REL / C	:	Ceiling value not be exceeded at any time.
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / C	:	Ceiling limit
OSHA Z-1 / TWA	:	8-hour time weighted average

AIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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