Safety Data Sheet

Revision Date: 04/15/19
www.restek.com
2 Letter ISO country code/language code: AU/EN

1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product identifier	**Qualitative Retention Time Index Std**	
Other means of identification	**31080**	
Recommended use of the chemical and restrictions on use	For Laboratory use only	
Details of manufacture or importer		
Company:	**Manufacturer**	**Supplier**
Address:	Restek Corporation 110 Benner Circle Bellefonte, Pa. 16823	LECO Australia Pty Ltd (Australia) PO Box 6006 BAULKHAM HILLS BC NSW AUSTRALIA 2153
Phone#:	814-353-1300	61 2 9849 5900
Fax#:	814-353-1309	61 2 9894 5247
Email:	sds@restek.com	Australia@leco.com
Emergency phone number	1-800-424-9300 (CHEMTREC) +1 703-741-5970 (Outside US)	Local 1800-800-950 +(61)-290372994 (In Country)
Revision Number	3	

2. HAZARD(S) IDENTIFICATION

Classification of the hazardous chemical

GHS Classification

Flammable Liquid Category 2
Skin Corrosion/Irritation Category 2
Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 2
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

Label elements, including precautionary statements

GHS Hazard Symbols:

Name of Pictograms:

Flame
Health Hazard

Signal Word:

Danger

Hazard Statements:

Highly flammable liquid and vapour.
Causes skin irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements:

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
Get medical advice/attention if you feel unwell.
Specific treatment see section 4.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal:

Dispose of contents/container according to section 13 of the SDS.

Other hazards which do not result in classification

Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS:

Chemical Name	CAS #	%
hexane	110-54-3	99.68
n-Pentadecane	629-62-9	0.02
tritriacontane	630-05-7	0.02
triacontane	638-68-6	0.02
dotriacontane	544-85-4	0.02
hentriacontane	630-04-6	0.02
Heptane	142-82-5	0.01
heptadecane	629-78-7	0.01
Hexadecane	544-76-3	0.01
tridecane	629-50-5	0.01
undecane	1120-21-4	0.01
n-tetracosane	646-31-1	0.01
n-Octane	111-65-9	0.01
nonane	111-84-2	0.01
heptacosane	593-49-7	0.01
tricosane	638-67-5	0.01
eicosane	112-95-8	0.01
n-hexacosane	630-01-3	0.01
n-Tetradecane	629-59-4	0.01
decane	124-18-5	0.01
nonadecane	629-92-5	0.01
docosane	629-97-0	0.01
pentacosane	629-99-2	0.01
n-Dodecane	112-40-3	0.01
octadecane	593-45-3	0.01
nonacosane	630-03-5	0.01
heneicosane	629-94-7	0.01
octacosane	630-02-4	0.01

4. FIRST AID MEASURES:

Description of first aid measures:

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen.

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

Symptoms caused by exposure:

Medical attention and special treatment:
Aspiration during swallowing or vomiting may severely damage the lungs.

5. FIREFIGHTING MEASURES

Suitable extinguishing media:

Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Special hazards arising from the chemical:

Carbon dioxide, Carbon monoxide Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Special protective equipment and precautions for fire fighters:

Do not enter fire area without proper protection including self-contained toxic breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use water spray/fog for cooling. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazchem code:

No data available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

Environmental precautions
No data available

Methods and materials for containment and cleaning up
Prevent chemicals from entering the watercourse

7. HANDLING AND STORAGE INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

Precautions for safe handling
Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Conditions for safe storage, including any incompatibilities
Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters – exposure standards, biological monitoring:

Chemical Name	CAS #	Australia Occupational Exposure Standards - TWAs	Australia Occupational Exposure Standards - STELs	Australia Occupational Exposure Standards - PELs	Biological monitoring
hexane	110-54-3	20 ppm TWA; 72 mg/m3 TWA	No data available	No data available	No data available

n-Pentadecane	629-62-9	No data available	No data available	No data available	No data available
tritriacontane	630-05-7	No data available	No data available	No data available	No data available
triacontane	638-68-6	No data available	No data available	No data available	No data available
dotriacontane	544-85-4	No data available	No data available	No data available	No data available
hentriacontane	630-04-6	No data available	No data available	No data available	No data available
Heptane	142-82-5	400 ppm TWA; 1640 mg/m3 TWA	500 ppm STEL; 2050 mg/m3 STEL	No data available	No data available
heptadecane	629-78-7	No data available	No data available	No data available	No data available
Hexadecane	544-76-3	No data available	No data available	No data available	No data available
tridecane	629-50-5	No data available	No data available	No data available	No data available
undecane	1120-21-4	No data available	No data available	No data available	No data available
n-tetracosane	646-31-1	No data available	No data available	No data available	No data available
n-Octane	111-65-9	300 ppm TWA; 1400 mg/m3 TWA	375 ppm STEL; 1750 mg/m3 STEL	No data available	No data available
nonane	111-84-2	200 ppm TWA; 1050 mg/m3 TWA	No data available	No data available	No data available
heptacosane	593-49-7	No data available	No data available	No data available	No data available
tricosane	638-67-5	No data available	No data available	No data available	No data available
eicosane	112-95-8	No data available	No data available	No data available	No data available
n-hexacosane	630-01-3	No data available	No data available	No data available	No data available
n-Tetradecane	629-59-4	No data available	No data available	No data available	No data available
decane	124-18-5	No data available	No data available	No data available	No data available
nonadecane	629-92-5	No data available	No data available	No data available	No data available
docosane	629-97-0	No data available	No data available	No data available	No data available
pentacosane	629-99-2	No data available	No data available	No data available	No data available
n-Dodecane	112-40-3	No data available	No data available	No data available	No data available
octadecane	593-45-3	No data available	No data available	No data available	No data available
nonacosane	630-03-5	No data available	No data available	No data available	No data available
heneicosane	629-94-7	No data available	No data available	No data available	No data available
octacosane	630-02-4	No data available	No data available	No data available	No data available

Appropriate Engineering controls:

Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Personal Protective equipment (PPE):

Respiratory Protection

Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to

	eliminate symptoms.
Eye and Face Protection	Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.
Skin Protection	Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work
Thermal hazards	No data available

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	No data available
Colour:	No data available
Odour:	Mild
Odour Threshold:	No data available
pH:	Not applicable
Melting Point/Freezing Point:	-95 °C Melting Point
Boiling point and boiling range:	68.73 °C (HSDB)
Flash Point:	-8
Evaporation Rate:	No data available
Flammability:	Extremely Flammable
Upper Flammable/Explosive Limit, % in air:	No data available
Lower Flammable/Explosive Limit, % in air:	No data available
Vapour Pressure:	No data available
Vapour Density:	2.97 (air = 1)
Relative Density:	0.672 g/cm3 at 15 °C
Solubility:	Negligible; 0-1%
Partition coefficient: n-octanol/water:	No data available
Auto-ignition Temperature:	No data available deg C
Decomposition Temperature:	No data available
Viscosity:	No data available
Specific Heat Value:	No data available
Particle Size:	No data available
Volatile Organic Chemicals:	0
Volatile organic compound (VOC) content and percentage of volatiles:	0
Saturated Vapour Concentration:	No data available
Release of invisible flammable vapours and gases:	No data available
Shape and aspect ratio:	No data available
Crystallinity:	No data available
Dustiness:	No data available
Surface Area:	No data available
Degree of aggregation or aggiomeration:	No data available
Ionisation (redox potential):	No data available
Biodurability or biopersistance:	No data available

10. STABILITY AND REACTIVITY

Reactivity:
Not expected to be reactive

Chemical stability:
Stable under normal conditions.

Conditions to avoid:
None known.

Incompatible materials and possible hazardous reactions:

Incompatible materials:	Strong oxidizing agents
Possibility of hazardous reactions:	None expected under standard conditions of storage

Hazardous decomposition products:
No data available

11. TOXICOLOGICAL INFORMATION:

Information on routes of exposure:	Inhalation Contact Absorption Ingestion
Target Organs Potentially Affected by Exposure:	Eyes, Central nervous system stimulation, Respiratory Tract, Skin, Peripheral Nervous System
Chemical Interactions That Change Toxicity:	None Known
Symptoms related to exposure:	No data available

Numerical measures of toxicity:

Acute Toxicity

Chemical Name	CAS No.	LD50/LC50
n-Hexane	110-54-3	Dermal LD50 Rabbit 3000 mg/kg; Inhalation LC50 Rat 48000 ppm 4 h; Oral LD50 Rat 25 g/kg

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

pH: Not applicable

Classification is based on pH and the components listed in Section 3.

Serious eye damage/irritation

pH: Not applicable

Based on available data, the classification criteria are not met.

Respiratory or skin sensitization

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) – single exposure

Classification has been based on toxicological information of the components in Section 3.

Specific Target Organ Toxicity (STOT) – repeated exposure

Classification has been based on toxicological information of the components in Section 3.

Aspiration hazard

Based on available data, the classification criteria are not met.

Immediate, delayed and chronic health effects from exposure:

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	May cause irritation and minor systemic damage.Harmful if absorbed through the skin.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Harmful if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.

Long-Term (Chronic) Health Effects

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache

	and possible unconsciousness.
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause minor systemic damage.
Interactive effects:	No data available
Data limitations:	No data available

12. ECOLOGICAL INFORMATION:

Ecotoxicity:
Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.

Persistence and degradability:
No data available

Bioaccumulative potential:

Mobility in soil:
No data

Other adverse effects:
None Known

13. DISPOSAL CONSIDERATIONS:

Safe handling and disposal methods:
Dispose of by incineration following Federal, State, Local, or Provincial regulations.

Disposal of any contaminated packaging:
Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.

Environmental Regulations:
No data available

14. TRANSPORTATION INFORMATION

Australia (ADG Code):

UN number:	UN1208
Transport hazard class(es):	3
Packing group:	II

International Air Transport (IATA):

UN number:	UN1208
UN proper shipping name:	Hexanes
Transport hazard class(es):	3
Packing group:	II

Environmental hazards: Yes

Chemical Name	CAS #	Marine Pollutant	Severe Marine Pollutant
hexane	110-54-3	Y	N

Special precautions during transport	No data available
Hazchem code	No data available

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poisons Schedule:

Chemical Name	CAS #	SUSMP
hexane	110-54-3	NO
n-Pentadecane	629-62-9	NO
tritriacontane	630-05-7	NO
triacontane	638-68-6	NO
dotriacontane	544-85-4	NO
hentriacontane	630-04-6	NO
Heptane	142-82-5	NO
heptadecane	629-78-7	NO
Hexadecane	544-76-3	NO
tridecane	629-50-5	NO
undecane	1120-21-4	NO
n-tetracosane	646-31-1	NO
n-Octane	111-65-9	NO
nonane	111-84-2	NO
heptacosane	593-49-7	NO
tricosane	638-67-5	NO
eicosane	112-95-8	NO
n-hexacosane	630-01-3	NO
n-Tetradecane	629-59-4	NO
decane	124-18-5	NO
nonadecane	629-92-5	NO
docosane	629-97-0	NO
pentacosane	629-99-2	NO
n-Dodecane	112-40-3	NO
octadecane	593-45-3	NO
nonacosane	630-03-5	NO
heneicosane	629-94-7	NO
octacosane	630-02-4	NO

Australian Inventory of Chemical substances (AICS):

Chemical Name	CAS #	Australian Inventory of Chemical substances (AICS)
hexane	110-54-3	YES
n-Pentadecane	629-62-9	YES
tritriacontane	630-05-7	NO
triacontane	638-68-6	NO
dotriacontane	544-85-4	NO
hentriacontane	630-04-6	NO
Heptane	142-82-5	YES
heptadecane	629-78-7	YES
Hexadecane	544-76-3	YES
tridecane	629-50-5	YES
undecane	1120-21-4	YES
n-tetracosane	646-31-1	YES
n-Octane	111-65-9	YES
nonane	111-84-2	YES
heptacosane	593-49-7	NO

tricosane	638-67-5	YES
eicosane	112-95-8	YES
n-hexacosane	630-01-3	NO
n-Tetradecane	629-59-4	YES
decane	124-18-5	YES
nonadecane	629-92-5	YES
docosane	629-97-0	YES
pentacosane	629-99-2	NO
n-Dodecane	112-40-3	YES
octadecane	593-45-3	YES
nonacosane	630-03-5	NO
heneicosane	629-94-7	YES
octacosane	630-02-4	NO

Dangerous Goods Initial Emergency Response Guide:
No data available

16. ANY OTHER RELEVANT INFORMATION

Date of preparation or review:	**04/15/19**
Key abbreviations or acronyms used:	No data available
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