

Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards	None known.
Supplemental information	Use in manufacturing processes only.

The classified hazards shown on this SDS are associated with the product concentrate. These hazards are not expected under recommended use conditions and dilution.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
SEVERELY-HYDROTREATED NAPHTHENIC PETROLEUM DISTILLATES		64742-52-5	30 - 60
ALKANES C14-16, CHLORO		63449-39-8	10 - 30
MONOETHANOLAMINE		141-43-5	1 - 5
TRIAZINETRIETHANOL		4719-04-4	1 - 5
TRIETHANOLAMINE		102-71-6	1 - 5
Other components below reportable levels			10 - 30

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin contact	Rinse skin with water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth thoroughly. Do not give liquids. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General information	If exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Foam. Dry chemical powder. Carbon dioxide (CO ₂). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Wear suitable protective equipment.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Local authorities should be advised if significant spillages cannot be contained. This product is miscible in water. Prevent entry into waterways, sewer, basements or confined areas. Clean up in accordance with all applicable regulations.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store in tightly closed container. If frozen, product may separate. Thaw completely at room temperature and stir thoroughly prior to use. Do not allow material to freeze. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

ACGIH

Components

Type

Value

SEVERELY-HYDROTREATED NAPHTHENIC PETROLEUM DISTILLATES (CAS 64742-52-5)

TWA

5 mg/m³

US. ACGIH Threshold Limit Values

Components

Type

Value

MONOETHANOLAMINE (CAS 141-43-5)

STEL

6 ppm

TWA

3 ppm

TRIETHANOLAMINE (CAS 102-71-6)

TWA

5 mg/m³

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components

Type

Value

MONOETHANOLAMINE (CAS 141-43-5)

STEL

15 mg/m³

6 ppm

TWA

7.5 mg/m³

3 ppm

TRIETHANOLAMINE (CAS 102-71-6)

TWA

5 mg/m³

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m3

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm
TRIETHANOLAMINE (CAS 102-71-6)	TWA	5 mg/m3

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm
TRIETHANOLAMINE (CAS 102-71-6)	TWA	3.1 mg/m3
		0.5 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m3
		6 ppm
	TWA	7.5 mg/m3
TRIETHANOLAMINE (CAS 102-71-6)		3 ppm
	TWA	5 mg/m3

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	15 minute	6 ppm
	8 hour	3 ppm
TRIETHANOLAMINE (CAS 102-71-6)	15 minute	10 mg/m3
	8 hour	5 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Do not get in eyes. Eye wash fountain is recommended.

Skin protection

Hand protection

Nitrile gloves are recommended.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Do not get in eyes, on skin, on clothing. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	CLEAR
Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	CHEMICAL
Odor threshold	Not available.
pH	Not Applicable
Melting point/freezing point	< 30 °F (< -1.1 °C)
Initial boiling point and boiling range	Not available.
Flash point	385 °F (196.1 °C) Cleveland Open Cup
Evaporation rate	Like water when diluted
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	100 % Miscible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Flash point class	Combustible IIIB
Oxidizing properties	Not oxidizing.
pH in aqueous solution	8.6 @ 5%
Specific gravity	1.015
VOC ASTM D2369	14 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Acids. Oxidizing agents. Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines.

Hazardous decomposition products Smoke, fumes, oxides of nitrogen, hydrogen chloride, and oxides of carbon

11. Toxicological information

Information on likely routes of exposure

Inhalation Health injuries are not known or expected under normal use.
Skin contact Causes skin irritation.
Eye contact Causes eye irritation.
Ingestion Expected to be a low ingestion hazard. Health injuries are not known or expected under normal use.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
ALKANES C14-16, CHLORO (CAS 63449-39-8)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	> 2000 mg/kg
Oral		
<i>Liquid</i>		
LD50	Rat	> 5000 mg/kg
SEVERELY-HYDROTREATED NAPHTHENIC PETROLEUM DISTILLATES (CAS 64742-52-5)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	> 2000 mg/kg
Oral		
<i>Liquid</i>		
LD50	Rat	> 5000 mg/kg
TRIAZINETRIETHANOL (CAS 4719-04-4)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rat	4000 mg/kg
Oral		
<i>Liquid</i>		
LD50	Rat	1000 mg/kg
TRIETHANOLAMINE (CAS 102-71-6)		
Acute		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	> 2000 mg/kg
Oral		
<i>Liquid</i>		
LD50	Rat	4190 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes eye irritation.	

Respiratory or skin sensitization

Canada - Alberta OELs: Irritant

MONOETHANOLAMINE (CAS 141-43-5) Irritant

TRIETHANOLAMINE (CAS 102-71-6) Irritant

Canada - Quebec OELs: Sensitizer

TRIETHANOLAMINE (CAS 102-71-6) Sensitizer.

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Oil /Distillate meets the EU requirement of less than 3% (w/w) DMSO extract for total polycyclic aromatic compound (PAC) using IP 346.

IARC Monographs. Overall Evaluation of Carcinogenicity

TRIETHANOLAMINE (CAS 102-71-6) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

Further information The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

12. Ecological information

Ecotoxicity Contains a substance which causes risk of hazardous effects to the environment.

Components	Species	Test Results	
ALKANES C14-16, CHLORO (CAS 63449-39-8)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	> 0.1 mg/l, 96 hours
MONOETHANOLAMINE (CAS 141-43-5)			
Aquatic			
Fish	LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	114 - 196 mg/l, 96 hours
<i>Acute</i>			
Crustacea	EC50	Daphnia	65 mg/l, 48 hours ECHA
TRIAZINETRIETHANOL (CAS 4719-04-4)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	11.9 mg/l, 48 hours ECHA
Fish	LC50	Fish	16 - 240 mg/l, 96 hours ECHA
TRIETHANOLAMINE (CAS 102-71-6)			
Aquatic			
Crustacea	EC50	Water flea (<i>Ceriodaphnia dubia</i>)	565.2 - 658.3 mg/l, 48 hours
<i>Acute</i>			
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	450 - 1000 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
MONOETHANOLAMINE	-1.31
TRIAZINETRIETHANOL	-2
TRIETHANOLAMINE	-2.3

Mobility in soil This product is miscible with water.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG

UN number UN3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKANES C14-16, CHLORO), MARINE POLLUTANT

Transport hazard class(es)

Class 9

Subsidiary risk -

Packing group III

Environmental hazards Yes

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number UN3082

UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (ALKANES C14-16, CHLORO)

Transport hazard class(es)

Class 9

Subsidiary risk -

Packing group III

Environmental hazards Yes

ERG Code 9L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed with restrictions.

Cargo aircraft only Allowed with restrictions.

IMDG

UN number UN3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKANES C14-16, CHLORO), MARINE POLLUTANT

Transport hazard class(es)

Class 9

Subsidiary risk -

Packing group III

Environmental hazards

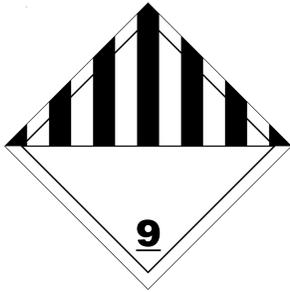
Marine pollutant Yes

EmS F-A, S-F

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

IATA; IMDG; TDG



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

15. Regulatory information

Canadian regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory or exempt (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No

Country(s) or region	Inventory name	On inventory or exempt (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

Issue date	06-07-2017
Revision date	04-28-2021
Version #	09
NFPA ratings	Health: 1 Flammability: 1 Instability: 0
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
Revision information	Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties Ecological information: Mobility in soil