



SAFETY DATA SHEET

According to the Hazard Communication Standard, 29 CFR 1910.1200

QUARTZ INEO LONG LIFE 0W-30

SDS #: 086610

Section 1. Identification

GHS product identifier : QUARTZ INEO LONG LIFE 0W-30

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Engine oil

Supplier's details : TOTAL Specialties USA, Inc.
1201 Louisiana St. Suite 1800
Houston, TX 77002
Phone: 713-483-5000
ProductSafety@total.com

Emergency telephone number (with hours of operation) :
1-866-928-0789 (For Emergencies, call CARECHEM 24/7 Domestic)
1-215-207-0061 (For Emergencies, call CARECHEM 24/7 International)

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1.5%

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

General : Not applicable

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Hazards not otherwise classified : Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy paraffinic	≥25 - ≤50	64742-54-7
Dec-1-ene, trimers, hydrogenated	≥25 - ≤50	157707-86-3
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	≤10	72623-87-1
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	≤10	72623-86-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Additional information : Mineral oil of petroleum origin Product containing mineral oil with less than 3% DMSO extract as measured by IP 346 The product is made from synthetic base oils

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
dryness
cracking
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated heavy paraffinic	ACGIH TLV (United States, 3/2019). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10 mg/m ³ 15 minutes. Form: Mist OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours.
Dec-1-ene, trimers, hydrogenated Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	None. NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10 mg/m ³ 15 minutes. Form: Mist
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	ACGIH TLV (United States, 3/2019). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10 mg/m ³ 15 minutes. Form: Mist OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours.

- Advisory OEL** : Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined)

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Hydrocarbon-proof gloves
Fluorinated rubber
nitrile rubber
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Respirator with combination filter for vapor/particulate Type A/P1
Warning ! filters have a limited use duration The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses None under normal use conditions

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [limpid]
Color : Not available.
Odor : Characteristic.
Odor threshold : Not available.
pH : Not applicable.
Melting point/freezing point : Not available.
Boiling point : Not available.
Flash point : Open cup: 232°C (449.6°F) [ASTM D 92]
Evaporation rate : Not available.
Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor pressure 37.8°C (100°F)	: <input checked="" type="checkbox"/> Not available.
Vapor density	: Not available.
Relative density	: <input checked="" type="checkbox"/> 0.8428 [ASTM D 1298]
Solubility	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: <input checked="" type="checkbox"/> Kinematic (40°C (104°F)): 0.62 cm ² /s (62 cSt) [ASTM D 445]
Flow time (ISO 2431)	: Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/substance	Result	Species	Dose	Exposure	Test
<input checked="" type="checkbox"/> Distillates (petroleum), hydrotreated heavy paraffinic	LC50 Inhalation Dusts and mists	Rat	5.1 mg/l	4 hours	OECD 403
	LD50 Dermal	Rabbit	>5000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 420
	LC50 Inhalation Vapor	Rat	1.17 mg/l	4 hours	OECD 403
Dec-1-ene, trimers, hydrogenated	LC50 Inhalation Vapor	Rat	0.9 mg/l	4 hours	OECD 403
	LC50 Inhalation Vapor	Rat	1.4 mg/l	4 hours	OECD 403
	LD50 Dermal	Rat	>3000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	LC50 Inhalation Dusts and mists	Rat	5.1 mg/l	4 hours	OECD 403

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	LD50 Dermal	Rabbit	>5000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
	LC50 Inhalation Dusts and mists	Rat	5.53 mg/l	4 hours	OECD 403
	LD50 Dermal	Rabbit	>5000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401

Conclusion/Summary : Based on available data, the classification criteria are not met.

Irritation/Corrosion

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

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

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

Sensitization

Not available.

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

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

Mutagenicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated heavy paraffinic	ASPIRATION HAZARD - Category 1
Dec-1-ene, trimers, hydrogenated	ASPIRATION HAZARD - Category 1
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	ASPIRATION HAZARD - Category 1
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 irritation
 dryness
 cracking
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Long term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

- General** : No known significant effects or critical hazards.
Carcinogenicity : During use in engines, contamination of oil with low levels of combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Distillates (petroleum), hydrotreated heavy paraffinic Dec-1-ene, trimers, hydrogenated	N/A	N/A	N/A	N/A	5.1
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	N/A	2500	N/A	N/A	N/A
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	N/A	N/A	N/A	N/A	5.1
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	N/A	N/A	N/A	N/A	5.53

Section 12. Ecological information

Toxicity

Product/substance	Result	Species	Exposure	Test
Distillates (petroleum), hydrotreated heavy paraffinic	Acute EC50 >100 mg/l	Algae - Pseudokirchnerella subcapitata	48 hours	OECD 201
	Acute EC50 >10000 mg/l	Daphnia - Daphnia magna	48 hours	OECD 202
	Chronic NOEL 10 mg/l	Daphnia - Daphnia magna	21 days	-
	Chronic NOEL >1000 mg/l	Fish - Oncorhynchus mykiss	21 days	-
Dec-1-ene, trimers, hydrogenated	Acute EC50 >1000 mg/l	Algae - Scenedesmus capricornutum	72 hours	OECD 201
	Acute EC50 >5002 ppm	Daphnia - Americamysis bahia	96 hours	OECD 202
	Acute EC50 >150 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute NOEL 1000 mg/l	Algae - Scenedesmus capricornutum	72 hours	OECD 201
	Acute NOEL 1000 mg/l	Fish - Oncorhynchus mykiss	96 hours	-
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	Chronic NOEL 125 mg/l	Daphnia - Daphnia magna	21 days	OECD 211
	Acute EC50 >100 mg/l	Algae - Pseudokirchnerella subcapitata	48 hours	OECD 201
	Acute EC50 >10000 mg/l	Daphnia - Daphnia magna	48 hours	OECD 202
	Acute LC50 >10000 mg/l	Daphnia - Gammarus pulex	24 hours	OECD 202
	Acute LC50 >10000 mg/l	Daphnia - Gammarus pulex	48 hours	OECD 202
	Acute LC50 >10000 mg/l	Daphnia - Gammarus pulex	72 hours	OECD 202
	Acute LC50 >10000 mg/l	Daphnia - Gammarus pulex	96 hours	OECD 202
	Acute NOEL 101 mg/l	Algae	72 hours	OECD 201
	Acute NOEL >100 mg/l	Fish - Pimephales promelas	96 hours	OECD 203
	Chronic NOEL 10 mg/l	Daphnia - Daphnia magna	21 days	OECD 211
Chronic NOEL >1000 mg/l	Fish - Oncorhynchus mykiss	21 days	-	
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Acute EC50 >1000 mg/l	Daphnia	48 hours	OECD 202
	Chronic NOEL 10 mg/l	Daphnia	21 days	OECD 202
	Chronic NOEL >1000 mg/l	Fish	14 days	-

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	-	-	Not readily
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogK _{ow}	BCF	Potential
Distillates (petroleum), hydrotreated heavy paraffinic Dec-1-ene, trimers, hydrogenated	>4	-	high
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	>6.5	-	high
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	4.1	-	high
	6.1	-	high

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility in soil : Given its physical and chemical characteristics, the product generally shows low soil mobility. The product is insoluble and floats on water. Loss by evaporation is limited.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	ICAO/IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Additional information

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
Clean Water Act (CWA) 307: Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Classification
Distillates (petroleum), hydrotreated heavy paraffinic	≥25 - ≤50	ASPIRATION HAZARD - Category 1
Dec-1-ene, trimers, hydrogenated	≥25 - ≤50	ASPIRATION HAZARD - Category 1
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	≤10	ASPIRATION HAZARD - Category 1
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	≤10	ASPIRATION HAZARD - Category 1

State regulations

Massachusetts : The following components are listed: OIL MIST, MINERAL; OIL MIST, MINERAL; OIL MIST, MINERAL

New York : None of the components are listed.

New Jersey : The following components are listed: MINERAL OIL (UNTREATED and MILDLY TREATED)

Pennsylvania : None of the components are listed.

California Prop. 65

To the best of our knowledge, this product does not contain any substances known to the State of California to cause cancer, developmental and/or reproductive harm

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : All components are listed or exempted.
- Canada** : All components are listed or exempted.
- China** : All components are listed or exempted.
- Europe** : All components are listed or exempted.
- Japan** : **Japan inventory (ENCS):** All components are listed or exempted.
Japan inventory (ISHL): Not determined.
- New Zealand** : All components are listed or exempted.
- Philippines** : All components are listed or exempted.
- Republic of Korea** : All components are listed or exempted.
- Taiwan** : All components are listed or exempted.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : All components are listed or exempted.
- Viet Nam** : Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	0
Flammability	1
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
Not classified.	

History

Date of revision : 6/23/2021
Date of previous revision : 12/30/2020
Version : 2

Key to abbreviations

: ATE = Acute Toxicity Estimate
 : BCF = Bioconcentration Factor
 : GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 : IATA = International Air Transport Association
 : IBC = Intermediate Bulk Container
 : IMDG = International Maritime Dangerous Goods
 : LogPow = logarithm of the octanol/water partition coefficient
 : MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 : N/A = Not available
 : SGG = Segregation Group
 : UN = United Nations

References

: Not available.

☑ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.