

SAFETY DATA SHEET



Duralec Super SAE 10W-30 CK-4

Section 1. Identification

GHS product identifier : Duralec Super SAE 10W-30 CK-4
Product code : 300993490017
Other means of identification : Not available.
Product type : Liquid.

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

Identified uses	
Lubricating Oil Synthetic	
Uses advised against	Reason
None known.	

Supplier's details : Calumet Branded Products, LLC
1060 N Capitol Ave Suite 6-401
Indianapolis, IN 46204
USA
Technical Services:317-328-5660

Emergency telephone number : 24 hr. CHEMTREC 1-800-424-9300 / International 1-703-527-3887

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.

GHS label elements

Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Not available.

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy paraffinic	≥75 - ≤90	64742-54-7
Lubricating oils (petroleum), hydrotreated spent	≤5	64742-58-1
Distillates (petroleum), solvent-dewaxed heavy paraffinic	≤2	64742-65-0
Paraffin oils (petroleum), catalytic dewaxed heavy	≤2	64742-70-7
Distillates (petroleum), solvent-dewaxed light paraffinic	≤2	64742-56-9
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts	≤1.5	113706-15-3

The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346

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

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified 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.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. 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 : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

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

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Section 4. First aid measures

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 an extinguishing agent suitable for the surrounding fire.

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
sulfur oxides
phosphorus oxides
metal oxide/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	<p>ACGIH TLV (United States, 1/2022). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction</p> <p>OSHA PEL (United States, 5/2018). [Oil mist, mineral] TWA: 5 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2020). [OIL MIST MINERAL] TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist</p>
Lubricating oils (petroleum), hydrotreated spent	<p>ACGIH TLV (United States). TWA: 5 mg/m³, (Inhalable Mist) 8 hours.</p>
Distillates (petroleum), solvent-dewaxed heavy paraffinic	<p>ACGIH TLV (United States, 1/2022). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction</p> <p>OSHA PEL (United States, 5/2018). [Oil mist, mineral] TWA: 5 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2020). [OIL MIST MINERAL] TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist</p>
Paraffin oils (petroleum), catalytic dewaxed heavy	<p>ACGIH TLV (United States, 1/2022). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction</p> <p>OSHA PEL (United States, 5/2018). [Oil mist, mineral] TWA: 5 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2020). [OIL MIST MINERAL] TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist</p>

Section 8. Exposure controls/personal protection

Distillates (petroleum), solvent-dewaxed light paraffinic

ACGIH TLV (United States, 1/2022).
[Mineral Oil, pure, highly and severely refined]

TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction

OSHA PEL (United States, 5/2018). [Oil mist, mineral]

TWA: 5 mg/m³ 8 hours.

NIOSH REL (United States, 10/2020). [OIL MIST MINERAL]

TWA: 5 mg/m³ 10 hours. Form: Mist

STEL: 10 mg/m³ 15 minutes. Form: Mist

Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoctyl) esters, zinc salts

None.

Biological exposure indices

No exposure indices known.

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.

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.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	: Liquid.
Color	: Purple.
Odor	: Characteristic.
Odor threshold	: Not available.
pH	: Not available.
Melting point/freezing point	: Not available.
Boiling point, initial boiling point, and boiling range	: Not available.
Flash point	: Open cup: 215.56°C (420°F) [Cleveland]
Evaporation rate	: Not available.
Flammability	: Not available.
Lower and upper explosion limit/flammability limit	: Not available.
Vapor pressure	:

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Distillates (petroleum), hydrotreated heavy paraffinic	<0.08	<0.011	ASTM D 5191			

Relative vapor density : Not available.

Relative density : 0.8695

Media	Result
cold water	Not soluble
hot water	Not soluble

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): 79.57 mm²/s (79.57 cSt)

Flow time (ISO 2431) : Not available.

Pour point : -41°C (-41.8°F)

Particle characteristics

Median particle size : Not applicable.

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 : No specific data.

Incompatible materials : No specific data.

Section 10. Stability and reactivity

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/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy paraffinic	LC50 Inhalation Dusts and mists	Rat	5.7 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Lubricating oils (petroleum), hydrotreated spent	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-dewaxed heavy paraffinic	LC50 Inhalation Dusts and mists	Rat	>5.53 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
Paraffin oils (petroleum), catalytic dewaxed heavy	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
Distillates (petroleum), solvent-dewaxed light paraffinic	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Vapor	Rat - Male	>2 mg/l	1 hours
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoctyl) esters, zinc salts	LD50 Dermal	Rabbit - Male, Female	>3160 mg/kg	-
	LD50 Oral	Rat	2600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoctyl) esters, zinc salts	Eyes - Severe irritant	Rabbit	-	504 hours	-
	Skin - Irritant	Guinea pig	-	4 hours	-

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoctyl) esters, zinc salts	skin	Guinea pig	Not sensitizing

Mutagenicity

Not available.

Carcinogenicity

Not available.

Conclusion/Summary

: Note L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

Reproductive toxicity

Section 11. Toxicological information

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoocetyl) esters, zinc salts	-	-	-	Rat - Male, Female	Oral	-

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Distillates (petroleum), solvent-dewaxed light paraffinic	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 : No known significant effects or critical hazards.
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 : No specific data.
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 : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Duralect Super SAE 10W-30	240739.4	2832.2	N/A	46.3	N/A
Distillates (petroleum), hydrotreated heavy paraffinic	N/A	2500	N/A	N/A	5.7
Distillates (petroleum), solvent-dewaxed heavy paraffinic	N/A	2500	N/A	N/A	N/A
Paraffin oils (petroleum), catalytic dewaxed heavy	N/A	2500	N/A	N/A	N/A
Distillates (petroleum), solvent-dewaxed light paraffinic	N/A	2500	N/A	N/A	N/A
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoctyl) esters, zinc salts	2600	2500	N/A	0.5	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Distillates (petroleum), hydrotreated heavy paraffinic	Acute EC50 >100 mg/l	Daphnia	48 hours
	Acute IC50 >100 mg/l	Algae	72 hours
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Acute LC50 >100 mg/l	Fish	96 hours
	Acute EC50 >100 mg/l	Algae	72 hours
Distillates (petroleum), solvent-dewaxed light paraffinic	Acute EC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
	Chronic NOEL >1 mg/l	Daphnia	21 days
Distillates (petroleum), solvent-dewaxed light paraffinic	Acute LC50 4.5 mg/l	Fish	96 hours
	LC50 4.5 mg/l	Fish	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoctyl) esters, zinc salts	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	1.5 % - Not readily - 28 days	-	-
	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	1.5 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated heavy paraffinic	-	-	Not readily
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoctyl) esters, zinc salts	-	-	Not readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
Distillates (petroleum), hydrotreated heavy paraffinic	>6	-	High
Distillates (petroleum), solvent-dewaxed heavy paraffinic	2 to 6	-	High

Mobility in soil

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

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	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.

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 IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR:** naphthalene
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 307: Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts; toluene; benzene
Clean Water Act (CWA) 311: toluene; benzene; ethylenediamine

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : 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

Section 15. Regulatory information

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
ethylenediamine	<0.1	Yes.	10000	1337.1	5000	668.5
vinyl acetate	<0.1	Yes.	1000	129	5000	644.8

SARA 304 RQ : 64984013.9 lbs / 29502742.3 kg [8963542.2 gal / 33930698.5 L]

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Classification
Distillates (petroleum), solvent-dewaxed light paraffinic	≤2	ASPIRATION HAZARD - Category 1
Phosphorodithioic acid, mixed O, O-bis(sec-Bu and isooctyl) esters, zinc salts	≤1.5	ACUTE TOXICITY (inhalation) - Category 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts	113706-15-3	≤1.5
Supplier notification	Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts	113706-15-3	≤1.5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : None of the components are listed.
New York : None of the components are listed.
New Jersey : The following components are listed: ZINC compounds
Pennsylvania : The following components are listed: ZINC COMPOUNDS
California Prop. 65

⚠ WARNING: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. Information provided is based on industrial use and may not be relevant to consumer applications.

Ingredient name	Concentration (%)	No significant risk level	Maximum acceptable dosage level
Toluene	0.0146	-	Yes.
Benzene	0.0146	Yes.	Yes.

International lists

National inventory

- Australia** : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Eurasian Economic Union : **Russian Federation inventory:** Not determined.
New Zealand : All components are listed or exempted.
Philippines : Not determined.
Republic of Korea : All components are listed or exempted.

Section 15. Regulatory information

Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: All components are active or exempted.
Viet Nam	: Not determined.

Section 16. Other information

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 issue/Date of revision : 09/11/2024

Date of previous issue : 07/31/2023

Version : 4.01

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

▣ 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.