

Conforms: GHS (rev 7) (2017)

(This Safety Data Sheet conforms to the requirements of the Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)), revised in 2012.) - United States

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Version : 2.1



# SAFETY DATA SHEET

YaraLiva CN-9

## Section 1. Identification

**GHS product identifier** : YaraLiva CN-9  
**Product type** : Liquid (Liquid)  
**Product code** : PB371U  
**Uses**  
**Area of application** : Professional applications  
**Material uses** : Fertilizers.

**Supplier**  
**Supplier's details** : Yara North America, Inc.

**Address**  
**Street** : 100 North Tampa Street, Suite 3200  
**Postal code** : 33602  
**City** : TAMPA  
**Country** : United States

**Telephone number** : +1 813 222 5700  
**Fax no.** : +1 813 875 5735  
**e-mail address of person responsible for this SDS** : yna-hesq@yara.com  
**Emergency telephone number (with hours of operation)** : US: Chemtrec 24-hours Emergency Response: 1-800-424-9300  
Canada: 24 Hour Emergency Service, CHEMTREC 1-800-424-9300

### National advisory body/Poison Center

**Name** : The National Poisons Emergency number  
**Telephone number** : 1 800 222 1222

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture.** : ACUTE TOXICITY (oral) - Category 4  
SERIOUS EYE DAMAGE - Category 1

**GHS label elements****Hazard pictograms****Signal word**

: Danger

**Hazard statements**: H302 Harmful if swallowed.  
H318 Causes serious eye damage.**Precautionary statements****Prevention**: P280 Wear protective gloves and eye protection.  
P270 Do not eat, drink or smoke when using this product.**Response**: P264-a Wash hands thoroughly after handling.  
P305 IF IN EYES:  
P351 Rinse cautiously with water for several minutes.  
P338 Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P301 IF SWALLOWED:  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 Rinse mouth.**Hazards not otherwise classified**

: None known.

**Additional information**

: None.

**Section 3. Composition/information on ingredients****Substance/mixture**

: Mixture

Ingredient name	%	CAS number
Calcium nitrate	>= 45 - < 50	10124-37-5
Ammonium nitrate	>= 3 - <= 5	6484-52-2

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 running water for at least 15

- minutes, keeping eyelids open. Check for and remove any contact lenses. Get medical attention immediately.
- Inhalation** : Avoid inhalation of vapor, spray or mist. If inhaled, remove to fresh air. Get medical attention immediately. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.
- Skin contact** : Wash with soap and water. Get medical attention if irritation develops.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Get medical attention if you feel unwell.

### **Most important symptoms/effects, acute and delayed**

#### **Potential acute health effects**

- Eye contact** : Causes serious eye damage.
- Inhalation** : Vapor may be irritating to eyes and respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Harmful if swallowed. May cause burns to mouth, throat and stomach.

#### **Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following: pain, watering, redness
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : Adverse symptoms may include the following: stomach pains, May cause burns to mouth, throat and stomach.

### **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. 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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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** : None identified.
- 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: nitrogen oxides, metal oxide/oxides, ammonia, Avoid breathing dusts, vapors or fumes from burning materials., In case of

inhalation of decomposition products in a fire, symptoms may be delayed.

- 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.
- Remark** : Non-flammable.
- Remark** : Non-explosive.

## 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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- 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. Approach release from upwind. 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. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

Not for human or animal consumption.

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- 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. Store locked up. 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. Bund storage facilities to prevent soil and water pollution in the event of spillage.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Calcium nitrate	None.
Ammonium nitrate	None.


#### Biological exposure indices

No exposure indices known.

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- 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** : A washing facility or water for eye and skin cleaning purposes should be present. 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. Wash

- Eye/face protection** : contaminated clothing before reusing.  
: 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.  
**Recommended:** 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. For general applications, we recommend gloves with a thickness typically greater than 0.35 mm. It should be emphasized that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material.  
> 8 hours (breakthrough time): Protective gloves should be worn under normal conditions of use.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved.
- 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** : In case of inadequate ventilation wear respiratory protection.  
**Recommended**  
Filter P2
- Personal protective equipment (Pictograms)** : 

## 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 [Liquid]  
**Color** : Colorless.,  
**Odor** : Odorless.  
**pH** : 5 - 7 [Conc.: 100 g/l ]
- Melting point/freezing point** : -20 - -15 °C (-4 - 5 °F)
- Boiling point, initial boiling point, and boiling range** : 115 °C (239 °F)
- Flash point** : Not applicable.
- Flammability** : Non-flammable.
- Lower and upper explosion limit/flammability limit** : **Lower:** Not determined.  
**Upper:** Not determined.
- Vapor pressure** : 13 hPa @ 20 °C (68 °F)
- Relative density** : Not applicable.
- Bulk density** : Not applicable.

<b>Density</b>	:	1.5 g/cm <sup>3</sup>
<b>Solubility(ies)</b>	:	Not applicable.
<b>Miscibility with water</b>	:	Miscible in water.
<b>Partition coefficient: n-octanol/water</b>	:	Not applicable.
<b>Auto-ignition temperature</b>	:	Not determined.
<b>Decomposition temperature</b>	:	Not applicable.
<b>Viscosity</b>	:	<b>Dynamic:</b> 7 mPa.s <b>Kinematic:</b> Not determined
<b>Explosive properties</b>	:	Non-explosive.
<b>Oxidizing properties</b>	:	None
<b><u>Particle characteristics</u></b>		
<b>Median particle size</b>	:	Not applicable.

## Section 10. Stability and reactivity

<b>Reactivity</b>	:	No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	:	The product is stable.
<b>Possibility of hazardous reactions</b>	:	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	:	Avoid contamination by any source including metals, dust and organic materials.
<b>Incompatible materials</b>	:	alkalis, combustible materials, reducing materials, organic materials, Acids
<b>Hazardous decomposition products</b>	:	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	Method	Species	Result	Exposure
Calcium nitrate				
	OECD 423 LD50 Oral	Rat - Female	500 mg/kg	Not applicable.
	OECD 402 LD50 Dermal	Rat	2,000 mg/kg	Not applicable.
Ammonium nitrate				
	OECD 401 LD50 Oral	Rat	2,950 mg/kg	Not applicable.
	OECD 402	Rat	> 5,000 mg/kg	Not applicable.

LD50 Dermal

**Conclusion/Summary** : Harmful if swallowed.**Irritation/Corrosion**

Product/ingredient name	Method	Species	Result	Exposure
Calcium nitrate				
	OECD 405 Eyes	Rabbit	Severe irritant	24 - 72 h
Ammonium nitrate				
	OECD 405 Eyes	Rabbit	Irritant	

**Conclusion/Summary****Skin** : No known significant effects or critical hazards.**Eyes** : Causes serious eye damage.**Respiratory** : No known significant effects or critical hazards.**Sensitization**

Product/ingredient name	Method	Species	Result
Ammonium nitrate			
	OECD 429 Skin	Mouse	Not sensitizing

**Conclusion/Summary****Skin** : Not sensitizing**Respiratory** : Not sensitizing**Mutagenicity**

Product/ingredient name	Method	Test detail	Result
Ammonium nitrate			
	OECD 473	Mammalian Toxicity - Genotoxicity - In vitro Mammalian Chromosome Aberration Test or Mammalian Bone Marrow Chromosomal Abberation Test or Mammalian Erythrocyte Micronucleus Test Experiment: In vitro	Negative
	OECD 471	Bacteria Experiment: In vitro	Negative

**Conclusion/Summary** : No known significant effects or critical hazards.**Carcinogenicity****Classification**

Product/ingredient name	OSHA	IARC	NTP



Calcium nitrate	Not applicable.	2A	Not applicable.
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**Conclusion/Summary** : No known significant effects or critical hazards.

**Reproductive toxicity**

Product/ingredient name	Method	Species	Result	Exposure
Ammonium nitrate				
	OECD 422 Oral	Rat	Fertility effects- Negative Developmental- Negative NOAEL > 1500 mg/kg bw/day	28 days

**Conclusion/Summary** : No known significant effects or critical hazards.

**Specific target organ toxicity (single exposure)**

No known significant effects or critical hazards.

**Specific target organ toxicity (repeated exposure)**

No known significant effects or critical hazards.

**Aspiration hazard**

No known significant effects or critical hazards.

**Information on the likely routes of exposure** : Not available.

**Potential acute health effects**

- Eye contact** : Causes serious eye damage.
- Inhalation** : Vapor may be irritating to eyes and respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Harmful if swallowed. May cause burns to mouth, throat and stomach.

**Symptoms related to the physical, chemical and toxicological characteristics**

- Eye contact** : Adverse symptoms may include the following: pain, watering, redness
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : Adverse symptoms may include the following: stomach pains, May cause burns to mouth, throat and stomach.

**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**

Product/ingredient name	Method	Species	Result	Exposure
Calcium nitrate				
	OECD 407 Sub-acute NOAEL Oral	Rat	> 1,000 mg/kg	28 days
Ammonium nitrate				
	OECD 422 Chronic NOAEL Oral	Rat	256 mg/kg	28 days
	OECD 412 Sub-acute NOEC Inhalation	Rat	> 185 mg/m <sup>3</sup>	2 weeks 5 hours per day

**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.

**Effects on or via lactation** : No known significant effects or critical hazards.

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

#### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following: pain, watering, redness

**Inhalation** : No specific data.

**Skin contact** : No specific data.

**Ingestion** : Adverse symptoms may include the following: stomach pains, May cause burns to mouth, throat and stomach.

#### Numerical measures of toxicity

##### Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
YaraLiva CN-9	1055.3 mg/kg	5353.3 mg/kg	N/A	N/A	N/A
Calcium nitrate	500 mg/kg	2500 mg/kg	N/A	N/A	N/A
Ammonium nitrate	2950 mg/kg	N/A	N/A	N/A	N/A

## Section 12. Ecological information

#### Toxicity

Product/ingredient name	Method	Species	Result	Exposure
Calcium nitrate				
	OECD 203 Acute LC50 Fresh water	Fish	1,378 mg/l	96 h
	Acute LC50 Fresh water	Daphnia	490 mg/l	48 h
	Acute EC50	Algae	> 1,700 mg/l	10 d

	Salt water			
	OECD 209 Chronic NOEC Activated sludge	Activated sludge	180 mg/l	180 min
Ammonium nitrate				
	Acute LC50 Fresh water	Fish	447 mg/l	48 h
	Acute EC50 Fresh water	Daphnia	490 mg/l	48 h
	Acute EC50 Salt water	Algae	1,700 mg/l	10 d

**Conclusion/Summary** : No known significant effects or critical hazards.

#### **Persistence and degradability**

**Conclusion/Summary** : Readily biodegradable in plants and soils.

#### **Bioaccumulative potential**

**Conclusion/Summary** : Bioaccumulation : Not reported

#### **Mobility in soil**

**Soil/water partition coefficient (KOC)** : Not available.

**Mobility** : This product may move with surface or groundwater flows because its water solubility is:

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

## **Section 13. Disposal considerations**

#### **Product**

**Methods of disposal** : 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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	IATA

<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	Not applicable.	Not applicable.	Not applicable.
<b>Transport hazard class(es)</b>	Not applicable.	Not applicable.	Not applicable.
<b>Packing group</b>	Not applicable.	Not applicable.	Not applicable.
<b>Environmental hazards</b>	No.	No.	No.

### Additional information

**Special precautions for user** : Transport within user's premises: 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** : **Proper shipping name** : Noxious liquid, (11) n.o.s. (CN9 contains Less than 50% calcium nitrate, less than 10% ammonium nitrate), Cat Z

**Remarks** : **Liquid bulk cargoes**  
Pollution category: Z

## **Section 15. Regulatory information**

### United States

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined

**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** : ACUTE TOXICITY - oral - Category 4

## SERIOUS EYE DAMAGE - Category 1

**Composition/information on ingredients**

Name	%	Classification
Calcium nitrate	>= 45 - < 50	SERIOUS EYE DAMAGE - Category 1 ACUTE TOXICITY - oral - Category 4 OXIDIZING SOLIDS - Category 3
Ammonium nitrate	>= 3 - <= 5	EYE IRRITATION - Category 2A OXIDIZING SOLIDS - Category 3

**SARA 313****Form R - Reporting requirements**

Product name	CAS number	%
Calcium nitrate	10124-37-5	>= 45 - < 50
Ammonium nitrate	6484-52-2	>= 3 - < 5

**Supplier notification**

Product name	CAS number	%
Calcium nitrate	10124-37-5	>= 45 - < 50
Ammonium nitrate	6484-52-2	>= 3 - < 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** : The following components are listed:  
Ammonium nitrate
- New York** : The following components are listed:  
Calcium nitrate  
Ammonium nitrate
- New Jersey** : The following components are listed:  
CALCIUM NITRATECalcium nitrate  
AMMONIUM NITRATEAmmonium nitrate
- Pennsylvania** : The following components are listed:  
NITRIC ACID AMMONIUM SALTAmmonium nitrate

**Inventory list**

**Philippines inventory (PICCS):** All components are listed or exempted.

**New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.

**Korea inventory:** All components are listed or exempted.

**Japan inventory (CSCL):** All components are listed or exempted.

**China inventory (IECSC):** All components are listed or exempted.

**Australia inventory (AIIIC):** All components are listed or exempted.

**Taiwan Chemical Substances Inventory (TCSI):** All components are listed or exempted.

**United States inventory (TSCA 8b):** All components are active or exempted.

**EC INVENTORY (EINECS/ELINCS):** All components are listed or exempted.

**Canada:** All components are listed or exempted.

**Thailand:** All components are listed or exempted.

**Turkey:** All components are listed or exempted.

**Viet Nam:** All components are listed or exempted.

## Section 16. Other information

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

Health	/	3
Flammability		0
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 MSDSs 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.

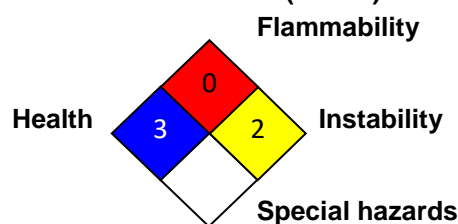
The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

#### Chronic toxicity:

- : No data available.

\* : Carcinogen, Target organs, Reproductive effects, Sensitizer to lungs

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



### Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (oral) - Category 4	Calculation method
SERIOUS EYE DAMAGE - Category 1	Calculation method

### History

<b>Date of printing</b>	: 06/28/2024
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<b>Version</b>	: 2.1
<b>Prepared by</b>	: Product Stewardship and Compliance (PSC).
<b>Key to abbreviations</b>	: 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

**Key data sources** : UN = United Nations  
EU REACH ECHA/IUCLID5 CSR.  
National Institute for Occupational Safety and Health, U.S.  
Dept. of Health, Education, and Welfare, Reports and  
Memoranda Registry of Toxic Effects of Chemical  
Substances.  
Sphera Solutions Inc., 4777 Levy Street, St Laurent, Quebec  
HAR 2P9, Canada.

|| 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.**