

Safety Data Sheet

CI-0801

1. Product and company identification

Product name	: CI-0801
Synonym	: Nitric acid, 2-ethylhexyl ester (CAS); 3-Nitroxymethyl-heptane (IUPAC)
CAS number	: 27247-96-7
Material uses	: Petrochemical industry: Fuel additive.
Internal code	: 10400
System code	: 10400
Date of issue/Date of revision	: 2/8/2021
Date of previous issue	: 2/8/2021
Version	: 1.22
Supplier	: Innospec Fuel Specialties LLC 8310 South Valley Highway Suite 350 Englewood CO, 80112 USA
Information contact	: 1-800-441-9547
e-mail address of person responsible for this SDS	: sdsinfo@innospecinc.com
NON-emergency enquiries	: corporatecommunications@innospecinc.com

Emergency telephone number

In USA, Canada and North America, 24 hour / 7 day emergency information for our product is provided by the CHEMTREC® Emergency Call Center based in the USA

Country information : **Emergency telephone number**

USA, Canada, Puerto Rico, Virgin Islands : +1 800 424 9300

In case of difficulties, or for ships at sea : +1 703 527 3887

In Europe, Middle East, Africa, Asia Pacific and South America 24 hour / 7 day emergency response for our products is provided by the NCEC CARECHEM 24 global network



The main regional centres are listed here in Section 1.

Other local contact numbers for specific language support in Asia Pacific are listed in Section 16

Country information : **Emergency telephone number** **Location**

South America (all countries)	: +1 215 207 0061	Philadelphia USA
Brazil	: +55 11 3197 5891	Brazil
Mexico	: +52 555 004 8763	Mexico
Europe (all countries) Middle East, Africa (French, Portuguese, English)	: +44 (0) 1235 239 670	London, UK
Middle East, Africa (Arabic, French, English , Portuguese, Farsi)	: +44 (0) 1235 239 671	London, UK

1. Product and company identification

Asia Pacific (all countries except China)	: +65 3158 1074	Singapore
China	: 400 120 6011	Beijing China

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	: FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4
GHS label elements	
Hazard pictograms	: 
Signal word	: Warning
Hazard statements	: H227 - Combustible liquid. H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.
Precautionary statements	
Prevention	: P280 - Wear protective gloves: > 8 hours (breakthrough time): Viton®1 - 4 hours (breakthrough time): nitrile rubber, neoprene. Wear protective clothing: Recommended: safety apron. Wear eye or face protection: Recommended: splash goggles. P210 - Keep away from flames and hot surfaces. No smoking. P271 - Use only outdoors or in a well-ventilated area. P261 - Avoid breathing vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash thoroughly after handling.
Response	: P304 + P340, P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. P301 + P312, P330 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P312, P352 - IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water.
Storage	: P403 + P235 - Store in cool/well-ventilated place.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Decomposes violently when heated above 100°C.
Hazards not otherwise classified	: None known.
Target organs	: May cause damage to the following organs: cardiovascular system.

See toxicological information (Section 11)

Section 3. Composition/information on ingredients

Substance/mixture	: Substance
Chemical name	: 2-ethylhexyl nitrate
Other means of identification	: Nitric acid, 2-ethylhexyl ester (CAS); 3-Nitroxymethyl-heptane (IUPAC)

Ingredient name	%	CAS number
2-ethylhexyl nitrate	99 - 100	27247-96-7

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

Additional information

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. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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 with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Remove dentures if any. Wash out mouth with water. Stop if the exposed person feels sick as vomiting may be dangerous. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Harmful if inhaled.
- Skin contact** : Harmful in contact with skin.

Section 4. First aid measures

Ingestion : Harmful if swallowed.

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 : 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. 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 dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. Decomposes violently when heated above 100°C.

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fight fire from protected location or maximum possible distance. Cool containing vessels with flooding quantities of water until well after fire is out.

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.

Remarks : Decomposes violently when heated above 100°C.

Flash point : Closed cup: 76.1°C (169°F) [Pensky-Martens. ASTM D93 ISO 2719]

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. 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

- Remarks** : Consult: Innospec RS PB 09-50 / RS PB 09-51 / ATC 2EHN Best Practices Manual 2016 (Document 79) Product trade name CI-0801: 2-ethylhexyl nitrate. Keep away from heat.

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. 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.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Eliminate all ignition sources. Separate from oxidizing materials. 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-ethylhexyl nitrate	Innospec Inc. (United States, 1/2013). Absorbed through skin. TWA: 1 ppm 8 hours. STEL: 1 ppm 15 minutes.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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. Recommended: splash goggles

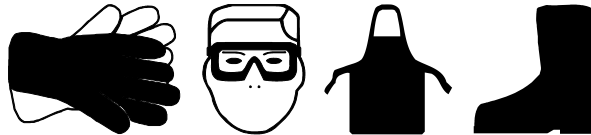
Skin protection

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): Viton®
1 - 4 hours (breakthrough time): nitrile rubber, neoprene

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. Recommended: safety apron

Section 8. Exposure controls/personal protection

- 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. Recommended: nitrile rubber
- 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. Recommended: full-face mask, organic vapor filter (Type A)
- Personal protective equipment (Pictograms)** :



Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Colorless to light yellow.
- Odor** : Characteristic. Pungent. Fruity. Ester. [Strong]
- Odor threshold** : 0.001 to 0.03 ppm
- pH** : Not applicable.
- Melting point/freezing point** : <-50°C (<-58°F)
- Boiling point** : Decomposes.> 100°C
- Flash point** : Closed cup: 76.1°C (169°F) [Pensky-Martens. ASTM D93 ISO 2719]
- Evaporation rate** : <1 compared with butyl acetate
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 0.25%
- Vapor pressure** : 0.03 kPa (0.2 mm Hg) (at 20°C)
- Vapor density** : >1 (Air = 1)
- Density** : 0.967 g/cm³ [15°C (59°F)]
- Specific gravity** : 0.967 [ASTM D 4052]
- Density** : 8.06 lbs/gal
- Solubility** : Very slightly soluble in the following materials: cold water, hot water.
- Solubility in water** : 0.0125 g/l
- Partition coefficient: n-octanol/water** : 5.24
- Auto-ignition temperature** : 176°C (348.8°F)
- Decomposition temperature** : >100°C (>212°F)
- Viscosity** : Dynamic (room temperature): 1.7 mPa·s (1.7 cP)
Kinematic (room temperature): 0.018 cm²/s (1.8 cSt)
Kinematic (40°C (104°F)): 0.013 cm²/s (1.3 cSt)
- Pour point** : <-45°C
- Heat of combustion** : 29.855 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : Decomposes violently when heated above 100°C. This mixture contains materials which are unstable under the following conditions: heat
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
- Incompatible materials** : Reactive or incompatible with the following materials:
oxidizing materials
Reactive or incompatible with the following materials: oxidizing materials, reducing materials and alkalis.
- 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	Test	Species	Result	Dose
2-ethylhexyl nitrate	-	Rat	LCLo Inhalation Vapor	>4.6 mg/l 1 hours
	-	Rabbit	LD50 Dermal	>4820 mg/ - kg
	-	Rat	LD50 Oral	>9640 mg/ - kg

Potential chronic health effects

Not available.

Irritation/Corrosion

Product/ingredient name	Test	Species	Result
2-ethylhexyl nitrate	OECD 437 Bovine Corneal Opacity and Permeability Test	Mammal - species unspecified	Eyes - Mild irritant -
	OECD 405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Mild irritant -

Conclusion/Summary

- Skin** : Non-irritating to the skin. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Eyes** : May cause eye irritation.
- Respiratory** : Slightly irritating to the respiratory system.

Sensitization

Product/ingredient name	Test	Species	Result
2-ethylhexyl nitrate	-	Guinea pig	Not sensitizing -

Mutagenicity

Section 11. Toxicological information

Product/ingredient name	Test	Experiment	Result
2-ethylhexyl nitrate	OECD 473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Human	Negative

Carcinogenicity

Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Reproductive toxicity

Product/ingredient name	Test	Species	Result	Dose
2-ethylhexyl nitrate	-	Rat - Male, Female Rat - Male, Female	-	Oral: 20 mg/kg Parental toxicity. Oral: 100 mg/kg F1

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-ethylhexyl nitrate	Acute EC50 1 to 10 mg/l Estimated.	Algae	72 hours
	Nominal Concentration	Daphnia	48 hours
	Acute EC50 >10 mg/l Estimated. Acute LC50 2 mg/l	Fish - Danio rerio	96 hours

Persistence and degradability

Product/ingredient name	Test	Result
2-ethylhexyl nitrate	OECD 310 Ready Biodegradability - CO ₂ in Sealed Vessels (Headspace Test)	0 % - Not readily - 28 days

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-ethylhexyl nitrate	Fresh water 10 to 15 days, pH 4, 25°C Fresh water 7 days, pH 7, 25°C Fresh water 4 to 6 days, pH 9, 25°C	-	Not readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
2-ethylhexyl nitrate	5.24	1332	high

Mobility in soil




Soil/water partition coefficient (K_{oc}) : 3.75

Mobility : Volatile.

Section 13. Disposal considerations

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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	NA1993	UN3082	UN3082
UN proper shipping name	Combustible liquid, n.o.s. (2-ethylhexyl nitrate). Marine pollutant (2-ethylhexyl nitrate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-ethylhexyl nitrate). Marine pollutant (2-ethylhexyl nitrate)	Environmentally hazardous substance, liquid, n.o.s. (2-ethylhexyl nitrate)
Transport hazard class(es)	Combustible liquid. 	9 	9 
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.
Additional information	Non-bulk packages (less than or equal to 119 gal) of combustible liquids, that are marine pollutants, are not regulated as hazardous materials, unless transported by vessel. This product is not regulated as a marine pollutant when	Emergency schedules (EmS) F-A, S-F Remarks Alkyl (C7-C9) nitrates, all isomers	

Section 14. Transport information

	<p>transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.</p> <p>Limited quantity Yes.</p> <p>Packaging instruction Exceptions: 150. Non-bulk: 203. Bulk: 241.</p> <p>Quantity limitation Passenger aircraft/rail: 60 L. Cargo aircraft: 220 L.</p> <p>Special provisions 148, IB3, T1, TP1</p>		
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Special precautions for user : Do not heat the product.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: This material is listed or exempted.

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 311/312

Classification

: FLAMMABLE LIQUIDS - Category 4
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4

State regulations

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International lists

National inventory

Australia inventory (AICS)

: This material is listed or exempted.

Canada inventory

: This material is listed or exempted.

China inventory (IECSC)

: This material is listed or exempted.

Europe inventory

: This material is listed or exempted.

Japan inventory

: **Japan inventory (ENCS)**: This material is listed or exempted.

Japan inventory (ISHL): This material is listed or exempted.

New Zealand Inventory of Chemicals (NZIoC)

: This material is listed or exempted.

Philippines inventory (PICCS)

: This material is listed or exempted.

Date of issue/Date of revision : 2/8/2021

Section 15. Regulatory information

- Korea inventory (KECI)** : This material is listed or exempted.
Taiwan inventory (TCSI) : This material is listed or exempted.
United States inventory (TSCA 8b) : This material is listed or exempted.

Our REACH (pre-) registrations DO NOT cover the following:

- The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
 - The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations
- Customers and other third parties importing and/or re-importing our products into Europe will need either:
- Their own (pre-) registration for substances contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
 - In the case of importation only, to make use of the "Only Representative" provisions, if available.

Section 16. Other information

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

Health	/	2
Flammability		2
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.

History

- Date of printing** : 2021-02-08
Date of issue/Date of revision : 2/8/2021(YYYY-MM-DD^)
Date of previous issue : 2/8/2021(YYYY-MM-DD^)
Version : 1.22

- 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)

Date of issue/Date of revision : 2/8/2021

Section 16. Other information

UN = United Nations

References

- : GOST 30333-2007 - Chemical production safety passport
- Maximum Permitted Concentration (MPC) GOST 12.1.005-88
- Poison class
- GOST no. 12.1.007
- РО МинЗдраСоц ПДК (ГОСТ 12.1.005-88)

✔ 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.