SAFETY DATA SHEET

Circular no. 32/2017/TT-BCT

CARTER SG 220

SDS # : 082433

Section 1. Identification

CAS number : Not applicable.

UN number : Not regulated.

EC number : Mixture.

GHS product identifier : CARTER SG 220

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

Identified uses
Industrial gear oil

Supplier's details :

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Emergency telephone number (with hours of operation) :

Vietnam: +84 28 4458 2388
Asia-Pacific: +65 3158 1074

Section 2. Hazard identification

Classification of the substance or mixture : AQUATIC TOXICITY (ACUTE) - Category 3

GHS label elements

Signal word : No signal word.

Hazard statements : Harmful to aquatic life.

Precautionary statements

Prevention : Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification : None known.

Additional information : The product is made from synthetic base oils

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

Ingredient name	CAS number	% (w/w)
Oxirane, 2-methyl-, polymer with oxirane, monobutyl ether	9038-95-3	≥50 - ≤75
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	<3
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	125643-61-0	≤3
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	192268-65-8	<1
N-methyl-N-[C18-(unsaturated)alkanoyl]glycine	-	≤0.3
(Z)-octadec-9-enylamine	112-90-3	<0.025

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. 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 : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. 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 adverse health effects persist or are severe. 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 : 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 : 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, CO_2, 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. This material is harmful to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : carbon monoxide
carbon dioxide
nitrogen oxides
phosphorus oxides
sulfur oxides
Hydrogen sulfide
Mercaptans

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). 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. 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

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. 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. 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
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	**ACGIH TLV (United States).** TWA: 3 mg/m³ Form: Respirable dust TWA: 10 mg/m³ Form: Total dust

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.

Advisory OEL : No known significant effects or critical hazards.

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. 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.
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.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

Appearance

Physical state : Liquid. [limpid]

Color : Clear.

Odor : Characteristic.

Odor threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Technically not possible to measure

Pour point : -30°C (-22°F)

Boiling point : >316°C (>600.8°F) [EN ISO 3405]

Flash point : Open cup: 240°C (464°F) [Cleveland Open Cup (COC)]

Evaporation rate : Not available.

Flammability (solid, gas) : Not applicable.

Lower and upper explosive (flammable) limits : Lower: 0.9%
Upper: 7%

Vapor pressure : <0.013 kPa (<0.1 mm Hg) [room temperature]
Not applicable. [50°C]

Vapor density : >2 [Air = 1]

Relative density : 1.093 [ISO 12185]

Density : 1.093 g/cm³ [15°C] [ISO 12185]

Solubility(ies) :

Media	Result
water	Easily soluble

Miscible with water : No.

Solubility in water : Not available.

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

Auto-ignition temperature : >240°C (>464°F) [ASTM E 659]

Decomposition temperature : Not applicable.

Viscosity : Kinematic (40°C (104°F)): 220 mm^2/s (220 cSt) [ISO 3104]

Flow time (ISO 2431) : Not available.

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 : Stable under recommended storage and handling conditions (see Section 7).

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 : carbon monoxide
carbon dioxide
nitrogen oxides
phosphorus oxides
sulfur oxides
Hydrogen sulfide
Mercaptans

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/substance	Result	Species	Dose	Exposure	Test
Oxirane, 2-methyl-, polymer with oxirane, monobutyl ether	LD50 Dermal	Rabbit	>2000 mg/kg	-	-
	LD50 Oral	Rat	5370 mg/kg	-	-
	LD50 Oral	Rat	>2000 mg/kg	-	-
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	LD50 Oral	Rat	>5000 mg/kg	-	-
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	LD50 Dermal	Rat	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>2000 mg/kg	-	OECD 401
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-	EU B.1 Acute Toxicity (Oral)
N-methyl-N-[C18-(unsaturated)alkanoyl] glycine	LC50 Inhalation Dusts and mists	Rat - Male	1.8 mg/l	4 hours	-
	LD50 Oral	Rat	>5000 mg/kg	-	-
(Z)-octadec-9-enylamine	LD50 Dermal	Rat	>2000 mg/kg	-	OECD 402 Acute Dermal Toxicity
	LD50 Oral	Rat	1689 mg/kg	-	-

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

Irritation/Corrosion

Product/substance	Result	Species	Score	Exposure	Test
Oxirane, 2-methyl-, polymer with oxirane, monobutyl ether	Skin - Mild irritant	Rabbit	-	500 mg	-
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	Eyes - Edema of the conjunctivae	Rabbit	0	-	OECD 405
	Skin - Edema	Rabbit	0	4 hours	OECD 404
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	Eyes - Iris lesion	Rabbit	0	-	EU EU Method B.5
	Skin - Edema	Rabbit	0	4 hours	EU B.4 Acute Toxicity: Dermal Irritation/ corrosion
(Z)-octadec-9-enylamine	Eyes - Severe irritant	Rabbit	-	-	OECD 405

	Skin - Edema	Rabbit	4	4 hours	Acute Eye Irritation/ Corrosion OECD 404
	Skin - Erythema/Eschar	Rabbit	4	4 hours	Acute Dermal Irritation/ Corrosion OECD 404
					Acute Dermal 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

Product/substance	Route of exposure	Species	Result
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	skin	Guinea pig	Not sensitizing
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	skin	Guinea pig	Not sensitizing

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

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

Mutagenicity

Product/substance	Test	Experiment	Result
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 473	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic	Negative
	OECD 474	Experiment: In vivo Subject: Mammalian-Animal Cell: Somatic	Negative
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
(Z)-octadec-9-enylamine	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476 *In vitro* Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic	Negative
	OECD 473 *In vitro* Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 475 Mammalian Bone Marrow Chromosomal	Experiment: In vivo Subject: Mammalian-Animal	Negative

	Aberration Test		

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

Carcinogenicity

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

Reproductive toxicity

Product/substance	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	-	Negative	Negative	Mouse - Male, Female	Oral	-
(Z)-octadec-9-enylamine	- -	- Negative	- Negative	Rabbit Rat	Oral Oral	- -

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

Teratogenicity

Product/substance	Result	Species	Dose	Exposure
(Z)-octadec-9-enylamine	Negative - Oral Negative - Oral	Rabbit Rat	- -	- -

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

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
(Z)-octadec-9-enylamine	Category 3	-	Respiratory tract irritation

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

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
(Z)-octadec-9-enylamine	Category 2	-	gastrointestinal tract, immune system, liver

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

Aspiration hazard

Name	Result
(Z)-octadec-9-enylamine	ASPIRATION HAZARD - Category 1

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

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

Product/substance	Result	Species	Dose	Exposure
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	Sub-acute NOAEL Oral	Rat - Male, Female	5 mg/kg NOAEL	-
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	Sub-chronic NOAEL Oral	Rat - Male, Female	50 mg/kg	13 weeks; 7 days per week
(Z)-octadec-9-enylamine	Sub-acute NOAEL Oral	Rat	3.25 mg/kg	-

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

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Oxirane, 2-methyl-, polymer with oxirane, monobutyl ether	5370	N/A	N/A	N/A	N/A
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	2500	2500	N/A	N/A	N/A
N-methyl-N-[C18-(unsaturated)alkanoyl]glycine	N/A	N/A	N/A	N/A	1.8
(Z)-octadec-9-enylamine	1689	2500	N/A	N/A	5.1

Other information :

Not available.

Section 12. Ecological information

Harmful to aquatic life.

Toxicity

Product/substance	Result	Species	Exposure	Test
Oxirane, 2-methyl-, polymer with oxirane, monobutyl ether	Acute EC50 >100 mg/l	Daphnia - Daphnia Magna	48 hours	-
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Acute EC50 3.1 mg/l	Algae - Scenedesmus	72 hours	OECD 201
	Acute EC50 >100 mg/l	Daphnia - Daphnia magna	24 hours	OECD 202
	Acute LC50 74.1 mg/l	Fish	96 hours	-
	Chronic NOEC <0.01 mg/l	Daphnia - Daphnia magna	21 days	OECD 211
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	Acute EC50 >100 mg/l	Algae - Scenedesmus subspicatu	72 hours	OECD 201
	Acute EC50 >100 mg/l	Daphnia - Daphnia magna	48 hours	OECD 202
	Chronic NOEC 5.5 mg/l	Daphnia - Daphnia magna	21 days	OECD 211
N-methyl-N-[C18-(unsaturated)alkanoyl]glycine	Acute LC50 9.3 mg/l	Fish - Leuciscus idus	96 hours	-
	Acute NOEC 0.91 mg/l	Algae - Desmodesmus subspicatus	72 hours	201
(Z)-octadec-9-enylamine	Acute EC50 0.38 mg/l	Algae - Desmodesmus subspicatus	72 hours	OECD 201
	Acute EC50 0.011 mg/l	Daphnia - Daphnia magna	48 hours	OECD 202
	Acute NOEC 0.15 mg/l	Algae - Desmodesmus subspicatus	72 hours	OECD 201
	Acute NOEC 0.01 mg/l	Algae - Selenastrum capricornutum	96 hours	OECD 201
	Chronic NOEC 0.013 mg/l	Daphnia - Daphnia magna	21 days	OECD 211

Persistence and degradability

Product/substance	Aquatic half-life	Photolysis	Biodegradability
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	-	-	Not readily
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	-	-	Not readily
N-methyl-N-[C18-(unsaturated)alkanoyl]glycine	-	-	Readily
(Z)-octadec-9-enylamine	-	-	Not readily

Bioaccumulative potential

Product/substance	$LogK_{ow}$	BCF	Potential
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	5.1	1730	high
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	9.2	260	low
reaction mass of: triphenylthiophosphate and	4.8 to 8.8	842 to 2194	high

tertiary butylated phenyl derivatives			

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 Loss by evaporation is limited The product is insoluble and sinks in water

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. 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

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

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

Circular no. 05/1999/TT-BYT

Ingredient name	Category	Notes
diphenylamine	Category 2	

Toxic classification (TCVN 3164-79) : 4

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 inventory (AIIC) : All components are listed, exempted, or notified.

Canada inventory (DSL/NDSL) : All components are listed or exempted.

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

Europe inventory (EC) : All components are listed or exempted.

Japan inventory : **Japan inventory (CSCL)**: At least one component is not listed.
Japan inventory (ISHL): Not determined.

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

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

Korea inventory (KECI) : All components are listed or exempted.

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

Thailand inventory : Not determined.

Turkey inventory : All components are listed or exempted.

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

Vietnam inventory : Not determined.

The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.

Section 16. Other information

Ratings of danger according to

NFPA

HMIS

Health	0
Flammability	1
Physical hazards	0

History

Date of revision : 2023/03/07

previous revision date : No previous validation

Version : 1

Key to abbreviations :
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HMIS = Hazardous Material Information System (U.S.A.)
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
NFPA = National Fire Protection Association (U.S.A.)
SGG = Segregation Group
UN = United Nations

Procedure used to derive the classification

Classification	Justification
AQUATIC TOXICITY (ACUTE) - Category 3	Calculation method

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.