5491N MICROMAX™ ENCAPSULANT PASTE

Version	Revision Date:	SDS Number:	Date of last issue: 2024/09/12
1.1	2025/06/11	300010001664	Date of first issue: 2024/09/12

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 5491N MICROMAX™ ENCAPSULANT PASTE
Product code : 000000000021056426

Manufacturer or supplier's details

Company : Celanese (Shanghai) International Trading Co., Ltd

Address : 4560 Jinke Road, Zhangjiang, Pudong
Shanghai, China 201210

Telephone : 86-21-38619288

Emergency telephone number : CHEMTREC International phone number: +1-703-527 3887, +86 532 8388-9090 (China, 24h)

E-mail address : HazCom@celanese.com

Recommended use of the chemical and restrictions on use

Recommended use : For industrial use only.
Paste for electronic industry

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance : viscous liquid
Colour : beige
Odour : solvent-like

Causes skin irritation. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects.

GHS Classification

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 2A

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H315 Causes skin irritation.
H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Physical and chemical hazards

Not classified based on available information.

Health hazards

Causes skin irritation. Causes serious eye irritation.

Environmental hazards

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Inorganic fillers		30 -40
Silicon dioxide, amorphous	7631-86-9	30 -40
2-(2-Butoxyethoxy)ethanol	112-34-5	1 -10
(2-Methoxymethylethoxy)propanol	34590-94-8	1 -10
Epoxy resin		1 -10
Polycarboxylate copolymer		1 -10

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

If inhaled	:	If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
In case of skin contact	:	Wash off with soap and water. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.
In case of eye contact	:	Immediately flush eyes for at least 15 minutes. Get medical attention.
If swallowed	:	If swallowed Rinse mouth with water. Call a physician or poison control centre immediately. DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Most important symptoms and effects, both acute and delayed	:	Causes skin irritation. Causes serious eye irritation.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry sand Dry chemical Alcohol-resistant foam
Specific hazards during firefighting	:	Hazardous decomposition products formed under fire conditions. (see also section 10) Avoid breathing decomposition products.
Specific extinguishing methods	:	Evacuate personnel to safe areas. Stop spill/release if it can be done with minimal risk. Do not allow run-off from fire fighting to enter drains or water courses.
Special protective equipment for firefighters	:	Exposure to decomposition products may be a hazard to health. Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Wear suitable protective equipment.
Environmental precautions	:	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Clean contaminated floors and objects thoroughly while observing environmental regulations.
Methods and materials for containment and cleaning up	:	Contain spill. Soak up with inert absorbent material. Collect and contain contaminated absorbent and dike material for disposal. Keep in suitable, closed containers for disposal. Ventilate the area. Clean contaminated surface thoroughly.
Prevention of secondary hazards	:	Dispose of in accordance with local regulations.

7. HANDLING AND STORAGE

Handling

Advice on protection against fire and explosion	:	Avoid formation of dust and aerosols. Keep away from heat and sources of ignition.
Advice on safe handling	:	Avoid inhalation, ingestion and contact with skin and eyes. Use only with adequate ventilation/personal protection. Keep container closed when not in use. Take care to avoid waste and spillage when weighing, loading and mixing the product.
Avoidance of contact	:	Acids

Storage

Conditions for safe storage	:	Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from sources of ignition - No smoking. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Keep container closed when not in use. Do not reuse empty container.
Further information on storage stability	:	Stable under normal conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of	Control parameters / Permissible	Basis

		exposure)	concentration	
2-(2-Butoxyethoxy)ethanol	112-34-5	TWA (Inhalable fraction and vapor)	10 ppm	ACGIH
(2-Methoxymethyleth-oxy)propanol	34590-94-8	PC-TWA	600 mg/m3	CN OEL
	Further information: Skin			
		PC-STEL	900 mg/m3	CN OEL
	Further information: Skin			
		TWA	50 ppm	ACGIH

Engineering measures : Local exhaust or a laboratory hood should be used when handling the materials.
Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Respiratory protection : Provide adequate ventilation.
No personal respiratory protective equipment normally required.
Where there is potential for airborne exposures in excess of applicable limits, wear approved respiratory protection with dust/mist cartridge.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
Persons performing maintenance or repairs on exhaust system equipment (e.g. ducts) may need to use respirators and protective clothing to prevent exposure to any accumulated residues.

Eye/face protection : Wear safety glasses with side shields.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Lightweight protective clothing
Safety shoes

Hand protection

Material : Impervious gloves

Remarks : Gloves must be inspected prior to use. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The exact break through time can be obtained from the protective glove producer and this has to be observed.
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.

Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Contaminated work clothing should not be allowed out of the workplace. Remove contaminated clothing and protective equipment before entering eating areas. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	viscous liquid
Colour	:	beige
Odour	:	solvent-like
Flash point	:	101 °C Method: closed cup
Density	:	1.70 g/cm³
Solubility(ies) Water solubility	:	slightly soluble

10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	:	Polymerization will not occur. Stable at normal temperatures and storage conditions.
Conditions to avoid	:	None reasonably foreseeable.
Incompatible materials	:	Acids
Hazardous decomposition products	:	No decomposition if stored and applied as directed. Under fire conditions: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Metal oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified due to lack of data.

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Components:

Silicon dioxide, amorphous:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

2-(2-Butoxyethoxy)ethanol:

Acute oral toxicity : LD50 (Mouse): 2,410 mg/kg
Method: OECD Test Guideline 401
Target Organs: Central nervous system
Remarks: narcosis

Acute inhalation toxicity : Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50 (Rabbit): 2,764 mg/kg
Method: OECD Test Guideline 402

(2-Methoxymethylethoxy)propanol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50 (Rabbit): 9,510 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Skin effects

Skin corrosion/irritation

Causes skin irritation.

Components:

Silicon dioxide, amorphous:

Species	:	Rabbit
Assessment	:	Not classified as irritant
Result	:	No skin irritation

2-(2-Butoxyethoxy)ethanol:

Species	:	Rabbit
Assessment	:	Not classified as irritant
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

(2-Methoxymethylethoxy)propanol:

Species	:	Rabbit
Assessment	:	No skin irritation
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

Silicon dioxide, amorphous:

Species	:	Rabbit
Result	:	No eye irritation
Assessment	:	Not classified as irritant

2-(2-Butoxyethoxy)ethanol:

Species	:	Rabbit
Result	:	Eye irritation
Assessment	:	Irritating to eyes.
Method	:	OECD Test Guideline 405

(2-Methoxymethylethoxy)propanol:

Species	:	Human
Result	:	Slight or no eye irritation
Assessment	:	No eye irritation
Remarks	:	Minimal effects that do not meet the threshold for classification.

Respiratory or skin sensitisation

Skin sensitisation

Not classified due to lack of data.

Respiratory sensitisation

Not classified due to lack of data.

Components:

Silicon dioxide, amorphous:

Species	:	Human
Assessment	:	Does not cause skin sensitisation.
Result	:	Does not cause skin sensitisation.

2-(2-Butoxyethoxy)ethanol:

Species	:	Mouse
Assessment	:	Does not cause respiratory sensitisation.
Result	:	Does not cause respiratory sensitisation.

Test Type	:	Maximisation Test
Species	:	Guinea pig
Assessment	:	Does not cause skin sensitisation.
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitisation.

(2-Methoxymethylethoxy)propanol:

Species	:	Human
Assessment	:	Does not cause skin sensitisation.
Result	:	Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

Silicon dioxide, amorphous:

Germ cell mutagenicity - Assessment	:	Animal testing did not show any mutagenic effects., Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

2-(2-Butoxyethoxy)ethanol:

Germ cell mutagenicity - Assessment	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Animal testing did not show any mutagenic effects.

(2-Methoxymethylethoxy)propanol:

Germ cell mutagenicity - Assessment	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Animal testing did not show any mutagenic effects.

Carcinogenicity

Not classified due to lack of data.

Components:

Silicon dioxide, amorphous:

Carcinogenicity - Assess-	:	Not classifiable as a human carcinogen., Animal testing did

ment not show any carcinogenic effects.

2-(2-Butoxyethoxy)ethanol:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

(2-Methoxymethylethoxy)propanol:

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects., Information given is based on data obtained from similar substances.

Reproductive toxicity

Not classified due to lack of data.

Components:

Silicon dioxide, amorphous:

Reproductive toxicity - Assessment : No toxicity to reproduction, Animal testing showed no reproductive toxicity.
Animal testing showed no developmental toxicity.

2-(2-Butoxyethoxy)ethanol:

Reproductive toxicity - Assessment : No toxicity to reproduction, Animal testing showed no reproductive toxicity.
Animal testing showed no developmental toxicity.

(2-Methoxymethylethoxy)propanol:

Reproductive toxicity - Assessment : No toxicity to reproduction, Animal testing showed no reproductive toxicity., No effects on or via lactation, Information given is based on data obtained from similar substances.
Animal testing showed no developmental toxicity.

STOT - single exposure

Not classified due to lack of data.

Components:

Silicon dioxide, amorphous:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

2-(2-Butoxyethoxy)ethanol:

Target Organs : Central nervous system
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

(2-Methoxymethylethoxy)propanol:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Not classified due to lack of data.

Components:

Silicon dioxide, amorphous:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

2-(2-Butoxyethoxy)ethanol:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

(2-Methoxymethylethoxy)propanol:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

Silicon dioxide, amorphous:

Species	:	Rat
NOAEL	:	4,000 mg/kg
Application Route	:	Oral
Method	:	OECD Test Guideline 408
Remarks	:	No toxicologically significant effects were found.

2-(2-Butoxyethoxy)ethanol:

Species	:	Rat
Application Route	:	Dermal
Remarks	:	Skin irritation

Species	:	Rat
Application Route	:	Oral
Remarks	:	Spleen effects Organ weight changes Liver effects kidney effects

Species	:	Rat
Application Route	:	Inhalation
Remarks	:	Liver effects lung effects

(2-Methoxymethylethoxy)propanol:

Species	:	Rat
NOAEL	:	1,000 mg/kg
Application Route	:	Ingestion
Exposure time	:	28 d
Remarks	:	No toxicologically significant effects were found.

Species	:	Rat
Application Route	:	Inhalation
Test atmosphere	:	vapour
Exposure time	:	90 d
Method	:	OECD Test Guideline 413
Remarks	:	No toxicologically significant effects were found.

Species	:	Rabbit
NOAEL	:	2,850 mg/kg
Application Route	:	Skin contact
Exposure time	:	90 d
Method	:	OECD Test Guideline 411
Remarks	:	No toxicologically significant effects were found.

Aspiration toxicity

Not classified due to lack of data.

Components:

Inorganic fillers:

No aspiration toxicity classification

Silicon dioxide, amorphous:

No aspiration toxicity classification

2-(2-Butoxyethoxy)ethanol:

The substance or mixture causes concern owing to the assumption that it causes a human aspiration toxicity hazard.

(2-Methoxymethylethoxy)propanol:

No aspiration toxicity classification

Epoxy resin:

No aspiration toxicity classification

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Inorganic fillers:

Ecotoxicology Assessment

Acute aquatic toxicity	:	Toxic effects cannot be excluded

Silicon dioxide, amorphous:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): 10,000 mg/l

Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): > 10,000 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Information given is based on data obtained from similar substances.

NOEC (Desmodesmus subspicatus (green algae)): 10,000 mg/l
Exposure time: 72 h
Remarks: Information given is based on data obtained from similar substances.

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

2-(2-Butoxyethoxy)ethanol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 1,300 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

(2-Methoxymethylethoxy)propanol:

Toxicity to fish : LC50 (Poecilia reticulata (guppy)): > 1,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Aquatic toxicity is unlikely due to low solubility.

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 969 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 969 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Epoxy resin:

Toxicity to fish : LC50 (Fish (unspecified species)): 0.12 mg/l
Exposure time: 96 h

Toxicity to algae/aquatic plants : EC50 (algae): 0.069 mg/l
Exposure time: 72 h

M-Factor (Acute aquatic toxicity) : 10

M-Factor (Chronic aquatic toxicity) : 10

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Components:

Silicon dioxide, amorphous:

Biodegradability : Result: Not biodegradable

2-(2-Butoxyethoxy)ethanol:

Biodegradability : Biodegradation: 85 %
Exposure time: 28 d
Method: OECD Test Guideline 301C
Remarks: Readily biodegradable.

(2-Methoxymethylethoxy)propanol:

Biodegradability : Result: Biodegradable
Method: OECD Test Guideline 301
Remarks: Readily biodegradable.

Bioaccumulative potential

Components:

2-(2-Butoxyethoxy)ethanol:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 1 (20 °C)
pH: 7

(2-Methoxymethylethoxy)propanol:

Partition coefficient: n-octanol/water : log Pow: 0.004 (25 °C)
pH: 7.5 - 7.7

Mobility in soil

No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : If recycling is not practicable, dispose of in compliance with local regulations.
Do not reuse empty container.Never place unused product down any indoor or out door drain.
Contaminated/not cleaned containers should be treated/handled like product waste.Dispose of container properly.Refer to applicable Local, State/Provincial, and Federal Regulations, as well as industry Standards.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
Class	:	9
Packing group	:	III
Labels	:	9
Environmentally hazardous	:	no

IATA-DGR

UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964

IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

GB 6944/12268

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
Class	:	9
Packing group	:	III
Labels	:	9
Marine pollutant	:	no

JT/T 617

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class	:	9
Packing group	:	III
Labels	:	9
Environmentally hazardous	:	no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. REGULATORY INFORMATION

National regulatory information

Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals	:	This product is not listed in the catalogue of hazardous chemicals, but it meets the definition of hazardous chemicals and its principles of determination.
Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)	:	Not listed

Hazardous Chemicals for Priority Management under SAWS	:	Not listed
Catalogue of Specially Controlled Hazardous Chemicals	:	Not listed
List of Explosive Precursors	:	Not listed

Regulations on Labour Protection in Workplaces where Toxic Substances are Used

Catalogue of Highly Toxic Chemicals	:	Not listed

Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import and Export	:	Not listed

Measures on the Environmental Administration of New Chemical Substances Registration

Registration/Notification number	:	B1B321221204 B1B321223738

Downstream users need to comply with the conditions of safe use of the chemical, understand the environmental and health hazard and risk management measures identified on the SDS as well as the local/national regulations concerning the chemical.

Regulation on the Administration of Precursor Chemicals

Catalogue and Classification of Precursor Chemicals	:	Not listed

Regulations on the Administration of Controlled Chemicals

List of Controlled Chemicals	:	Not listed

Regulations of Ozone Depleting Substances Management

List of Controlled Ozone Depleting Substances	:	Not listed
List of Controlled Ozone Depleting Substances Import and Export	:	Not listed

Environmental Protection Law

List of Priority Controlled Chemicals	:	Not listed
List of Key Controlled New Pollutants	:	Not listed

16. OTHER INFORMATION

Revision Date	:	2025/06/11
Date format	:	yyyy/mm/dd

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CN OEL	:	Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.

ACGIH / TWA	:	8-hour, time-weighted average
CN OEL / PC-TWA	:	Permissible concentration - time weighted average
CN OEL / PC-STEL	:	Permissible concentration - short term exposure limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

CN / EN