

ULTRASTAR SX-9103 SILVER US

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/02/2025

 1.3
 05/09/2025
 102000036480
 Date of first issue: 06/05/2023

SECTION 1. IDENTIFICATION

Product name : ULTRASTAR SX-9103 SILVER US

Product code : 047081DR0

Manufacturer or supplier's details

Company name of supplier : ECKART America Corporation

Address : 830 East Erie Street

Painesville OH 44077

Telephone : 866-458-7837

(440) 954-7600

Telefax : (440) 354-6224

e-mail adresse : info.eckart.america.oh@altana.com

Emergency telephone : CHEMTREC: 800-424-9300

CHEMTREC: 1-703-527-3387 (International)

NCEC:

(contract no. ECKART29003-NCEC) US: +1 866 928 0789 (Toll free) Canada: +1 800 579 7421 (Toll Free)

Mexico: +52 55 5004 8763

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids : Category 4

Skin irritation : Category 2

Eye irritation : Category 2A

Skin sensitization : Category 1

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H227 Combustible liquid.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.



ULTRASTAR SX-9103 SILVER US

Version Re

Revision Date: 05/09/2025

SDS Number: 102000036480

Date of last issue: 04/02/2025 Date of first issue: 06/05/2023

H319 Causes serious eye irritation.

Precautionary Statements

Prevention:

P210 Keep away from heat/ sparks/ open flames/

hot surfaces. No smoking.

P261 Avoid breathing mist or vapors.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing must not be

allowed out of the workplace.

P280 Wear protective gloves/ eye protection/ face

protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and

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.

P333 + P313 If skin irritation or rash occurs: Get medical

advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/

attention.

P362 Take off contaminated clothing and wash

before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or

alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved

waste disposal plant.

Hazardous ingredients which must be listed on the label:

Aziridine, homopolymer

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Ethanol, 2-butoxy-	111-76-2	>= 30 - < 50



ULTRASTAR SX-9103 SILVER US

Version Revision Date: SDS Number: Date of last issue: 04/02/2025 1.3 05/09/2025 102000036480 Date of first issue: 06/05/2023

1-Butanol, 3-methoxy-3-methyl-	56539-66-3	>= 30 - < 50
Aluminum	7429-90-5	>= 5 - < 10
2-Propanone	67-64-1	>= 1 - < 5
Aziridine, homopolymer	9002-98-6	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

Take the victim into fresh air. General advice

Move out of dangerous area.

Show this material safety data sheet to the doctor in

attendance.

Do not leave the victim unattended.

If inhaled Remove to fresh air.

If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

Wash off immediately with soap and plenty of water. In case of skin contact

If skin irritation persists, call a physician.

If on clothes, remove clothes.

Immediately flush eye(s) with plenty of water. In case of eye contact

Immediately flush eye(s) with plenty of water.

Remove contact lenses.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

Induce vomiting immediately and call a physician. If swallowed

Keep respiratory tract clear.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

Most important symptoms

Causes skin irritation. and effects, both acute and

delayed

May cause an allergic skin reaction.

Causes serious eye irritation.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Dry sand

ABC powder

Foam

Unsuitable extinguishing

media

: High volume water jet Carbon dioxide (CO2)

High volume water jet

Further information For safety reasons in case of fire, cans should be stored

separately in closed containments.

Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.



ULTRASTAR SX-9103 SILVER US

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/02/2025

 1.3
 05/09/2025
 102000036480
 Date of first issue: 06/05/2023

Use a water spray to cool fully closed containers.

Special protective equipment :

for fire-fighters

Wear self-contained breathing apparatus for firefighting if

necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas. Use personal protective equipment.

General advice : The product should not be allowed to enter drains, water

courses or the soil.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Environmental precautions : The product should not be allowed to enter drains, water

courses or the soil.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for containment and cleaning up

Use mechanical handling equipment.

Soak up with inert absorbent material (e.g. sand, silica gel,

acid binder, universal binder, sawdust).

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against

fire and explosion

: Do not spray on a naked flame or any incandescent material.

Keep away from open flames, hot surfaces and sources of

ignition.

Advice on safe handling : Avoid formation of aerosol.

Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national



ULTRASTAR SX-9103 SILVER US

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/02/2025

 1.3
 05/09/2025
 102000036480
 Date of first issue: 06/05/2023

regulations.

Conditions for safe storage : Earthing of containers and apparatuses is essential.

Reaction with water liberates extremely flammable gas

(hydrogen)

Take measures to prevent the build up of electrostatic charge.

Use explosion-proof equipment.

Store in original container.

Keep containers tightly closed in a cool, well-ventilated place.

Keep away from sources of ignition - No smoking.

Keep container closed when not in use.

No smoking.

Keep in a well-ventilated place. Observe label precautions.

Electrical installations / working materials must comply with

the technological safety standards. Protect from humidity and water.

Technical

measures/Precautions

Materials to avoid

Do not store near acids.

Do not store together with oxidizing and self-igniting products.

Never allow product to get in contact with water during

storage.

Keep away from oxidizing agents, strongly alkaline and

strongly acid materials in order to avoid exothermic reactions.

Further information on

storage stability

No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethanol, 2-butoxy-	111-76-2	TWA	20 ppm	ACGIH
		TWA	5 ppm 24 mg/m3	NIOSH REL
		TWA	50 ppm 240 mg/m3	OSHA Z-1
		TWA	25 ppm 120 mg/m3	OSHA P0
Aluminum	7429-90-5	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA	5 mg/m3	NIOSH REL



ULTRASTAR SX-9103 SILVER US

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/02/2025

 1.3
 05/09/2025
 102000036480
 Date of first issue: 06/05/2023

	1	(Respirable)	I	I
		TWA (total dust)	15 mg/m3	OSHA Z-3
		TWA (total)	10 mg/m3	NIOSH REL
		TWA (respirable fraction)	5 mg/m3	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable particulate matter)	1 mg/m3	ACGIH
		TWA	5 mg/m3 (Aluminum)	NIOSH REL
		TWA (Total)	15 mg/m3 (Aluminum)	OSHA P0
		TWA (Respirable fraction)	5 mg/m3 (Aluminum)	OSHA P0
		TWA (total dust)	15 mg/m3 (Aluminum)	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3 (Aluminum)	OSHA Z-1
		TWA (Total dust)	15 mg/m3 (Aluminum)	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3 (Aluminum)	OSHA P0
		TWA (welding fumes)	5 mg/m3 (Aluminum)	NIOSH REL
		TWA (pyro powders)	5 mg/m3 (Aluminum)	NIOSH REL
		TWA (Respirable particulate matter)	1 mg/m3 (Aluminum)	ACGIH
		TWA (Fumes)	5 mg/m3	OSHA P0
		TWA (powder)	5 mg/m3 (Aluminum)	OSHA P0
2-Propanone	67-64-1	TWA	250 ppm	ACGIH



ULTRASTAR SX-9103 SILVER US

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/02/2025

 1.3
 05/09/2025
 102000036480
 Date of first issue: 06/05/2023

STEL	500 ppm	ACGIH
TWA	250 ppm 590 mg/m3	NIOSH REL
TWA	1,000 ppm 2,400 mg/m3	OSHA Z-1
TWA	750 ppm 1,800 mg/m3	OSHA P0
STEL	1,000 ppm 2,400 mg/m3	OSHA P0

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Samplin g time	Permissible concentratio n	Basis
Ethanol, 2-butoxy-	111-76-2	Butoxyaceti c acid (BAA)	Urine	End of shift (As soon as possible after exposure ceases)	200 mg/g creatinine	ACGIH BEI
2-Propanone	67-64-1	Acetone	Urine	End of shift (As soon as possible after exposure ceases)	25 mg/l	ACGIH BEI

Personal protective equipment

Respiratory protection : Use suitable breathing protection if workplace concentration

requires.

Hand protection

Material : Solvent-resistant gloves (butyl-rubber)

Remarks : Take note of the information given by the producer

concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). 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



ULTRASTAR SX-9103 SILVER US

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/02/2025

 1.3
 05/09/2025
 102000036480
 Date of first issue: 06/05/2023

danger of cuts, abrasion, and the contact time.

Recommended preventive skin protection Skin should be washed after contact. The suitability for a specific workplace should be discussed with the producers of the protective

gloves.

Eye protection : Goggles

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing

problems.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and

concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid Color : silver Odor : solvent

Odor Threshold : No data available

pH : substance/mixture is non-soluble (in water)

: No data available

Melting point/freezing point : No data available

Boiling point/boiling range : 171 °C

Flash point : 67 °C

Evaporation rate : No data available Flammability (solid, gas) : No data available Upper explosion limit / Upper : No data available

flammability limit

Lower explosion limit / Lower

flammability limit

Vapor pressure : No data available Relative density : No data available Density : 0.85 - 1.0 g/cm3

Solubility(ies) : No data available Partition coefficient: n- : No data available

octanol/water

Autoignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available

Total Volatile organic

compounds (VOC) content : 80.00 - 90.00 %



ULTRASTAR SX-9103 SILVER US

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/02/2025

 1.3
 05/09/2025
 102000036480
 Date of first issue: 06/05/2023

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous : Contact with acids and alkalis may release hydrogen.

No decomposition if stored and applied as directed.

Vapors may form explosive mixture with air.

Conditions to avoid : Do not allow evaporation to dryness.

Heat, flames and sparks.

Incompatible materials : Acids

Bases

Oxidizing agents

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified due to lack of data.

Components:

Ethanol, 2-butoxy-:

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after

short term inhalation.

2-Propanone:

Acute oral toxicity : LD50 (Rabbit): 4,700 - 5,800 mg/kg

(Mouse): 3,000 mg/kg

(Rat): 9,800 mg/kg

Acute inhalation toxicity : LC50 (Rat): 76 mg/l

Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Aziridine, homopolymer:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after

single ingestion.



ULTRASTAR SX-9103 SILVER US

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/02/2025

 1.3
 05/09/2025
 102000036480
 Date of first issue: 06/05/2023

Skin corrosion/irritation

Causes skin irritation.

Components:

Ethanol, 2-butoxy-: Result: Skin irritation

2-Propanone:

Remarks: Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

Ethanol, 2-butoxy-:

Result: Eye irritation

1-Butanol, 3-methoxy-3-methyl-:

Result: Mild eye irritation

2-Propanone:

Result: Eye irritation

Aziridine, homopolymer:

Result: Eye irritation

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified due to lack of data.

Components:

Aziridine, homopolymer:

Result: May cause sensitization by skin contact.

Germ cell mutagenicity

Not classified due to lack of data.



ULTRASTAR SX-9103 SILVER US

Version Revision Date: SDS Number: Date of last issue: 04/02/2025 1.3 05/09/2025 102000036480 Date of first issue: 06/05/2023

Carcinogenicity

Not classified due to lack of data.

IARC No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

Reproductive toxicity

Not classified due to lack of data.

STOT-single exposure

Not classified due to lack of data.

Components:

2-Propanone:

Assessment: May cause drowsiness or dizziness.

STOT-repeated exposure

Not classified due to lack of data.

Aspiration toxicity

Not classified due to lack of data.

Further information

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

2-Propanone:

Toxicity to daphnia and other : (Daphnia magna (Water flea)): 21,600 mg/l

aquatic invertebrates

Aziridine, homopolymer:

Ecotoxicology Assessment

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.



ULTRASTAR SX-9103 SILVER US

Version Revision Date: SDS Number: Date of last issue: 04/02/2025 1.3 05/09/2025 102000036480 Date of first issue: 06/05/2023

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

> Dispose of as unused product. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Domestic regulation

49 CFR

UN/ID/NA number : UN 1210 Proper shipping name Printing ink

Class : 111 Packing group

Labels : FLAMMABLE LIQUID

ERG Code 129 Marine pollutant no

International Regulations

IATA-DGR

UN/ID No. UN 1210 Proper shipping name Printing ink

Class Packing group Ш

Flammable Liquids Labels

366

: 355

Packing instruction (cargo

aircraft)

Packing instruction (passenger aircraft)

IMDG-Code



ULTRASTAR SX-9103 SILVER US

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/02/2025

 1.3
 05/09/2025
 102000036480
 Date of first issue: 06/05/2023

UN number : UN 1210
Proper shipping name : PRINTING INK

Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-D
Marine pollutant : no

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

Not applicable for product as supplied.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know CERCLA Reportable Quantity

Components	CAS-No.	Component RQ
		(lbs)
2-Propanone	67-64-1	5000

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)

Respiratory or skin sensitization

Skin corrosion or irritation

Serious eye damage or eye irritation

SARA 313 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

Ethanol, 2-butoxy- 111-76-2 >= 30 - < 50 %

Aluminum 7429-90-5 >= 5 - < 10 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).



ULTRASTAR SX-9103 SILVER US

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/02/2025

 1.3
 05/09/2025
 102000036480
 Date of first issue: 06/05/2023

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

Ethanol, 2-butoxy- 111-76-2 >= 30 - < 50 %

1-Butanol, 3-methoxy-3-methyl- 56539-66-3 >= 30 - < 50 %

2-Propanone 67-64-1 >= 1 - < 5 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307 This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

Ethanol, 2-butoxy-

Aluminum 7429-90-5

2-Propanone 67-64-1

Pennsylvania Right To Know

Ethanol, 2-butoxy-

1-Butanol, 3-methoxy-3-methyl- 56539-66-3

Aluminum 7429-90-5

Acetic acid ethenyl ester, polymer with ethenol, cyclic acetal 68648-78-2

with butanal

2-Propanone 67-64-1

California Prop. 65



WARNING: This product can expose you to chemicals including lead and cadmium, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

Ethanol, 2-butoxy-

Aluminum 7429-90-5



ULTRASTAR SX-9103 SILVER US

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04/02/2025

 1.3
 05/09/2025
 102000036480
 Date of first issue: 06/05/2023

2-Propanone 67-64-1

California Permissible Exposure Limits for Chemical Contaminants

Ethanol, 2-butoxy-

Aluminum 7429-90-5

2-Propanone 67-64-1

The ingredients of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL TSCA : All substances listed as active on the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA PO : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated

values)

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1

Limits for Air Contaminants

OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3

Mineral Dusts

ACGIH / TWA : 8-hour, time-weighted average ACGIH / STEL : Short-term exposure limit

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

OSHA P0 / TWA : 8-hour time weighted average OSHA P0 / STEL : Short-term exposure limit OSHA Z-1 / TWA : 8-hour time weighted average OSHA Z-3 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation,



ULTRASTAR SX-9103 SILVER US

Version Revision Date: SDS Number: Date of last issue: 04/02/2025 1.3 05/09/2025 102000036480 Date of first issue: 06/05/2023

and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; 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

Revision Date : 05/09/2025

The information provided in this Material 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.

US / Z8