SAFETY DATA SHEET
According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

CARADOL ED110-200

Version	Revision Date:	SDS Number:	Print Date: 03/25/2024
1.4	03/18/2024	800010030551	Date of last issue: 09/07/2023

SECTION 1. IDENTIFICATION

Product name : CARADOL ED110-200

Product code : U175F

Synonyms : Polyol

CAS-No. : 25322-69-4

Manufacturer or supplier's details

Company : **Shell Chemical LP**
PO Box 576
HOUSTON TX 77001
USA

SDS Request : 1-800-240-6737

Customer Service : 1-855-697-4355

Emergency telephone number

Chemtrec Domestic (24 hr) : 1-800-424-9300

Chemtrec International (24 hr) : 1-703-527-3887

Recommended use of the chemical and restrictions on use

Recommended use : Use for the manufacture of polyurethane products.

Restrictions on use : This product must not be used in applications other than the above without first seeking the advice of the supplier.

Other information : CARADOL is a registered trademark of Shell trademark Management BV.

SECTION 2. HAZARDS IDENTIFICATION

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

Based on available data this substance / mixture does not meet the classification criteria.

GHS label elements

Hazard pictograms : No Hazard Symbol required

Signal word : No signal word

Hazard statements : PHYSICAL HAZARDS:
Not classified as a physical hazard under GHS criteria.

HEALTH HAZARDS:
Not classified as a health hazard under GHS criteria.
ENVIRONMENTAL HAZARDS:
Not classified as an environmental hazard under GHS criteria.

Precautionary statements :

Prevention:

No precautionary phrases.

Response:

No precautionary phrases.

Storage:

No precautionary phrases.

Disposal:

No precautionary phrases.

Other hazards which do not result in classification

none
The classification of this material is based on OSHA HCS 2012 criteria.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

Chemical name	Synonyms	CAS-No.	Concentration (% w/w)
Polypropylene glycol	Propane-1,2-diol, propoxylated	25322-69-4	<= 100

SECTION 4. FIRST-AID MEASURES

General advice : Not expected to be a health hazard when used under normal conditions.

If inhaled : No treatment necessary under normal conditions of use.
If symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.
If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.
Remove contact lenses, if present and easy to do. Continue rinsing.
If persistent irritation occurs, obtain medical attention.

If swallowed : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

Most important symptoms and effects, both acute and delayed	:	Not considered to be an inhalation hazard under normal conditions of use. Possible respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing. No specific hazards under normal use conditions. Skin irritation signs and symptoms may include a burning sensation, redness, or swelling. Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. Ingestion may result in nausea, vomiting and/or diarrhoea.
Protection of first-aiders	:	When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
Indication of any immediate medical attention and special treatment needed	:	Call a doctor or poison control center for guidance. Treat symptomatically. Following cases of gross overexposure, investigation of liver, kidney and eye function may be advisable. Records of such incidents should be maintained for future reference.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Large fires should only be fought by properly trained fire fighters. Alcohol-resistant foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	:	Do not use water in a jet.
Specific hazards during fire-fighting	:	Will only burn if enveloped in a pre-existing fire. Hazardous combustion products may include: Carbon dioxide Unidentified organic and inorganic compounds. Toxic gases Carbon monoxide.
Specific extinguishing methods	:	Standard procedure for chemical fires.
Further information	:	Clear fire area of all non-emergency personnel. All storage areas should be provided with adequate fire fighting facilities. Keep adjacent containers cool by spraying with water.
Special protective equipment for firefighters	:	Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Observe all relevant local and international regulations. Avoid contact with skin, eyes and clothing. Avoid inhaling vapour and/or mists. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks.
Environmental precautions	:	Remove all possible sources of ignition in the surrounding area. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Use appropriate containment to avoid environmental contamination. Ventilate contaminated area thoroughly.
Methods and materials for containment and cleaning up	:	For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. Proper disposal should be evaluated based on regulatory status of this material (refer to Section 13), potential contamination from subsequent use and spillage, and regulations governing disposal in the local area.
Additional advice	:	For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.

SECTION 7. HANDLING AND STORAGE

Technical measures	:	Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Ensure that all local regulations regarding handling and storage facilities are followed.

Advice on safe handling	:	In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. Use local exhaust extraction over processing area. Avoid unintentional contact with isocyanates to prevent uncontrolled polymerisation. Avoid contact with skin, eyes and clothing. Air-dry contaminated clothing in a well-ventilated area before laundering. Do not empty into drains. Handling Temperature: Ambient. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks.
Avoidance of contact	:	Avoid contact with isocyanates, copper and copper alloys, zinc, strong oxidizing agents, and water.
Product Transfer	:	Lines should be purged with nitrogen before and after product transfer. Keep containers closed when not in use.
Conditions for safe storage	:	Refer to section 15 for any additional specific legislation covering the packaging and storage of this product.
Storage period	:	24 Months
Further information on storage stability	:	Prevent all contact with water and with moist atmosphere. Tanks must be clean, dry and rust-free. Prevent ingress of water. Must be stored in a diked (bunded) well- ventilated area, away from sunlight, ignition sources and other sources of heat. Nitrogen blanket recommended for large tanks (capacity 100 m3 or higher). Drums should be stacked to a maximum of 3 high. Storage Temperature: Ambient. Storage should be handled at temperatures such that viscosities are less than 500 cSt; typically at 25-50 °C. Tanks should be fitted with heating coils in areas where the ambient temperatures are below the recommended product handling temperatures. Heating coil skin temperatures should not exceed 100 °C.
Packaging material	:	Suitable material: Stainless steel., For container paints, use epoxy paint, zinc silicate paint. Unsuitable material: Copper., Copper alloys.
Specific use(s)	:	Not applicable

Ensure that all local regulations regarding handling and storage facilities are followed.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Biological occupational exposure limits

No biological limit allocated.

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.
Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.
National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/
Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/
Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/
Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA) , Germany http://www.dguv.de/inhalt/index.jsp
L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

Engineering measures : Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.
Adequate ventilation to control airborne concentrations.
The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances.
Appropriate measures include:

General Information:
Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.
Practice good housekeeping.
Define procedures for safe handling and maintenance of controls.
Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.
Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective

equipment, local exhaust ventilation.
Drain down system prior to equipment break-in or maintenance.
Retain drain downs in sealed storage pending disposal or subsequent recycle.

Personal protective equipment

Respiratory protection : No respiratory protection is ordinarily required under normal conditions of use.
In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material.

Hand protection
Remarks : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. Longer term protection: Nitrile rubber. Incidental contact/Splash protection: PVC, neoprene or nitrile rubber gloves For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Eye protection : If material is handled such that it could be splashed into eyes, protective eyewear is recommended.

Skin and body protection : Skin protection is not ordinarily required beyond standard work clothes.
It is good practice to wear chemical resistant gloves.

Protective measures : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Hygiene measures : Wash hands before eating, drinking, smoking and using the toilet.
Launder contaminated clothing before re-use.

Environmental exposure controls

General advice : Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.
Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.
Information on accidental release measures are to be found in section 6.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	colourless
Odour	:	odourless
Odour Threshold	:	Data not available
pH	:	Not applicable
Melting / freezing point	:	Data not available
Boiling point/boiling range	:	288 °C / 550 °F
Flash point	:	Typical > 185 °C / > 365 °F Method: ASTM D93 (PMCC)
Evaporation rate	:	Data not available
Flammability		
Flammability (solid, gas)	:	Not applicable
Lower explosion limit and upper explosion limit / flammability limit		
Upper explosion limit / upper flammability limit	:	no data available
Lower explosion limit / Lower flammability limit	:	no data available
Vapour pressure	:	0.0008 hPa (20 °C / 68 °F)
Relative vapour density	:	Data not available
Relative density	:	Data not available
Density	:	Typical 1,008 kg/m3 (20 °C / 68 °F) Method: ASTM D4052
Solubility(ies)		
Water solubility	:	Miscible.

Solubility in other solvents	:	Data not available
Partition coefficient: n-octanol/water	:	log Pow: 0.01 (25 °C / 77 °F)
Auto-ignition temperature	:	Data not available
Decomposition temperature	:	> 270 °C / > 518 °F
Viscosity		
Viscosity, dynamic	:	Typical 100 mPa.s (20 °C / 68 °F) Method: ASTM D445
Viscosity, kinematic	:	Data not available
Explosive properties	:	Classification Code: Not classified
Oxidizing properties	:	Data not available
Surface tension	:	63.6 mN/m
Conductivity	:	Electrical conductivity: > 10,000 pS/m, A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid, This material is not expected to be a static accumulator.
Molecular weight	:	1,000 g/mol
Particle size	:	Data not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
Chemical stability	:	No hazardous reaction is expected when handled and stored according to provisions Hygroscopic.
Possibility of hazardous reactions	:	Polymerises exothermically with di-isocyanates at ambient temperatures. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of reaction partners is good or is supported by stirring or by the presence of solvents. Reacts with strong oxidising agents.
Conditions to avoid	:	Heat, flames, and sparks. Product cannot ignite due to static electricity.
Incompatible materials	:	Avoid contact with isocyanates, copper and copper alloys, zinc, strong oxidizing agents, and water.

Hazardous decomposition products : Unknown toxic products may be formed.

SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment : Information given is based on data obtained from similar substances.
Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Information on likely routes of exposure
Exposure may occur via inhalation, ingestion, skin absorption, skin or eye contact, and accidental ingestion.

Acute toxicity

Product:

Acute oral toxicity : LD 50 : > 2,000 mg/kg
Remarks: Based on available data, the classification criteria are not met.

Acute inhalation toxicity : Remarks: Based on available data, the classification criteria are not met.

Acute dermal toxicity : LD 50 : > 2,000 mg/kg
Remarks: Low toxicity
Based on available data, the classification criteria are not met.

Components:

Polypropylene glycol:

Acute oral toxicity : LD 50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on available data, the classification criteria are not met.

Acute inhalation toxicity : LD50 (Rat, male and female): > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Remarks: Based on available data, the classification criteria are not met.

Acute dermal toxicity : LD 50 : > 2,000 mg/kg
Remarks: Low toxicity
Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Product:

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

Components:

Polypropylene glycol:
Species: Rabbit
Method: Test(s) equivalent or similar to OECD Test Guideline 404
Remarks: Slightly irritating to skin., Insufficient to classify., Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Product:

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

Components:

Polypropylene glycol:
Species: Rabbit
Method: OECD Test Guideline 405
Remarks: Slightly irritating to the eye., Insufficient to classify., Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Product:

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

Components:

Polypropylene glycol:
Species: Guinea pig
Method: OECD Test Guideline 406
Remarks: Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

Genotoxicity in vivo : Remarks: Based on available data, the classification criteria are not met.

Components:

Polypropylene glycol:

Genotoxicity in vitro : Method: Test(s) equivalent or similar to OECD Guideline 471
Remarks: Based on available data, the classification criteria are not met.

: Method: Directive 67/548/EEC, Annex V, B.10.
Remarks: Based on available data, the classification criteria are not met.

Genotoxicity in vivo : Test species: Rat
Method: Directive 67/548/EEC, Annex V, B.12.
Remarks: Based on available data, the classification criteria

are not met.

Carcinogenicity

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

Components:
Polypropylene glycol:
Remarks: Based on available data, the classification criteria are not met.

IARC	No component 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 component 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

Product:

Effects on fertility	:	Remarks: Based on available data, the classification criteria are not met.

Components:
Polypropylene glycol:

Effects on fertility	:	Species: Rat Sex: male and female Application Route: Inhalation Method: Equivalent or similar to OECD Test Guideline 416 Remarks: Based on available data, the classification criteria are not met.
Effects on foetal development	:	Species: Rat, female Application Route: Oral Method: OECD Test Guideline 414 Remarks: Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

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

Components:

Polypropylene glycol:
Exposure routes: Inhalation
Target Organs: Central nervous system
Remarks: May cause drowsiness or dizziness., Based on available data, the classification criteria are not met.

STOT - repeated exposure

Product:

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

Components:

Polypropylene glycol:
Remarks: Based on available data, the classification criteria are not met.

Repeated dose toxicity

Components:

Polypropylene glycol:
Species: Rat, male and female
Application Route: Inhalation
Test atmosphere: Gas
Method: OECD Test Guideline 413
Target Organs: No specific target organs noted

Aspiration toxicity

Product:

Not an aspiration hazard.

Components:

Polypropylene glycol:
Not an aspiration hazard.

Further information

Product:

Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

Components:

Polypropylene glycol:
Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment : Incomplete ecotoxicological data are available for this product. The information given below is based partly on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Ecotoxicity

Product:

Toxicity to fish (Acute toxicity) : LC50: > 100 mg/l
Remarks: Based on available data, the classification criteria are not met.
Practically non toxic:

Toxicity to daphnia and other aquatic invertebrates (Acute toxicity) : EC50: > 100 mg/l
Remarks: Based on available data, the classification criteria are not met.
Practically non toxic:

Toxicity to algae (Acute toxicity) : EC50: > 100 mg/l
Remarks: Practically non toxic:
Based on available data, the classification criteria are not met.

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: Data not available

Toxicity to microorganisms (Acute toxicity) : IC50: > 100 mg/l
Remarks: Based on available data, the classification criteria are not met.
Practically non toxic:

Components:

Polypropylene glycol:

Toxicity to fish (Acute toxicity) : LC50 (Danio rerio (zebra fish)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Based on available data, the classification criteria are not met.

Toxicity to daphnia and other aquatic invertebrates (Acute toxicity) : EC50 (Daphnia magna (Water flea)): > 105.8 mg/l
Exposure time: 48 h
Remarks: Based on available data, the classification criteria are not met.

Toxicity to algae (Acute toxicity)	:	EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 202 Remarks: Based on available data, the classification criteria are not met.
Toxicity to fish (Chronic toxicity)	:	Remarks: Data not available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): > 10 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to microorganisms (Acute toxicity)	:	EC50 (Activated sludge, domestic waste): > 1,000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 Remarks: Based on available data, the classification criteria are not met.

Persistence and degradability

Product:

Biodegradability	:	Remarks: Readily biodegradable.

Components:

Polypropylene glycol:

Biodegradability	:	Biodegradation: 86.6 % Exposure time: 28 d Method: OECD Test Guideline 301F Remarks: Readily biodegradable.

Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: Does not bioaccumulate significantly.

Components:

Polypropylene glycol:

Bioaccumulation	:	Remarks: Does not bioaccumulate significantly.

Mobility in soil

Product:

Mobility	:	Remarks: If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater.

Components:

Polypropylene glycol:

Mobility : Remarks: If product enters soil, it will be highly mobile and may contaminate groundwater.
Dissolves in water.

Remarks: If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater.

Other adverse effects

Components:

Polypropylene glycol:

Results of PBT and vPvB assessment : The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Recover or recycle if possible.
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.

Do not dispose into the environment, in drains or in water courses.
Waste product should not be allowed to contaminate soil or water.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.
Local regulations may be more stringent than regional or national requirements and must be complied with.

Contaminated packaging : Drain container thoroughly.
After draining, vent in a safe place away from sparks and fire.
Send to drum recoverer or metal reclaimer.
Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.

SECTION 14. TRANSPORT INFORMATION

National Regulations

US Department of Transportation Classification (49 CFR Parts 171-180)

Not regulated as a dangerous good

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Maritime transport in bulk according to IMO instruments

Pollution category	:	Z
Ship type	:	3
Product name	:	Polypropylene Glycol
Special precautions	:	Special Precautions: Refer to Section 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

Special precautions for user

Remarks	:	Special Precautions: Refer to Section 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.
Additional Information	**:**	Transport in bulk according to Annex II of Marpol and the IBC Code This product may be transported under nitrogen blanketing. Nitrogen is an odourless and invisible gas. Exposure to nitrogen may cause asphyxiation or death. Personnel must observe strict safety precautions when involved with a confined space entry.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act
*: This material does not contain any components with a CERCLA RQ.

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	:	No SARA Hazards
SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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

US State Regulations

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Other regulations:

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

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

DSL	:	Listed
IECSC	:	Listed
ENCS	:	Listed
KECI	:	Listed
NZIoC	:	Listed
PICCS	:	Listed
TSCA	:	Listed
TCSI	:	Listed
EINECS	:	Listed

SECTION 16. OTHER INFORMATION

Further information

NFPA Rating (Health, Fire, Reactivity)	0, 1, 0

Full text of other abbreviations

Abbreviations and Acronyms : The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS = Australian Inventory of Chemical Substances
ASTM = American Society for Testing and Materials
BEL = Biological exposure limits
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
CAS = Chemical Abstracts Service

CEFIC = European Chemical Industry Council
CLP = Classification Packaging and Labelling
COC = Cleveland Open-Cup
DIN = Deutsches Institut fur Normung
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
DSL = Canada Domestic Substance List
EC = European Commission
EC50 = Effective Concentration fifty
ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals
ECHA = European Chemicals Agency
EINECS = The European Inventory of Existing Commercial Chemical Substances
EL50 = Effective Loading fifty
ENCS = Japanese Existing and New Chemical Substances Inventory
EWC = European Waste Code
GHS = Globally Harmonised System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IC50 = Inhibitory Concentration fifty
IL50 = Inhibitory Level fifty
IMDG = International Maritime Dangerous Goods
INV = Chinese Chemicals Inventory
IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables
KECI = Korea Existing Chemicals Inventory
LC50 = Lethal Concentration fifty
LD50 = Lethal Dose fifty per cent.
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading
LL50 = Lethal Loading fifty
MARPOL = International Convention for the Prevention of Pollution From Ships
NOEC/NOEL = No Observed Effect Concentration / No Observed Effect Level
OE_HPV = Occupational Exposure - High Production Volume
PBT = Persistent, Bioaccumulative and Toxic
PICCS = Philippine Inventory of Chemicals and Chemical Substances
PNEC = Predicted No Effect Concentration
REACH = Registration Evaluation And Authorisation Of Chemicals
RID = Regulations Relating to International Carriage of Dangerous Goods by Rail
SKIN_DES = Skin Designation
STEL = Short term exposure limit
TRA = Targeted Risk Assessment
TSCA = US Toxic Substances Control Act
TWA = Time-Weighted Average
vPvB = very Persistent and very Bioaccumulative

A vertical bar (|) in the left margin indicates an amendment from the previous version.

Sources of key data used to compile the Safety Data Sheet	:	The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID date base, EC 1272 regulation, etc).
Revision Date	:	03/18/2024

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.

US / EN