

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



ETHYLENE

Version	Revision Date:	SDS Number:	Date of last issue: 08/26/2026
1.4	08/26/2026	BEN224	Date of first issue: 05/27/2026

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name	:	ETHYLENE
Substance name	:	Ethylene
Substance No.	:	200-815-3 (EINECS)
Chemical characterization	:	Alkene or Olefin Hydrocarbon.

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

Identified uses	:	Manufacture; Distribution of substance; Formulation & (re)packing of substance and mixtures; Use as intermediate; Polymer production; Polymer processing; Rubber Production and processing; Use in a fuel; Functional Fluids; Use in laboratories
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1.3 Details of the supplier of the safety data sheet

Company	Registration number	Telephone
Velogy Polyoléfines France SAS Chemin départemental 54 B.P. 14 13131 Berre l'Etang Cedex France	01-2119462827-27-0019	+33 (0) 4 42 74 42 74
Raffinerie de Berre		
MUO Polyolefine GmbH Berghauser Weg 50 85126 Münchsmünster Germany	01-2119462827-27-0584	+49 (0)8402 76329
Rotterdam Olefins & Polyolefins B.V. Aert van Nesstraat 45 3012 CA Rotterdam Netherlands	N/A	+31 (0) 10 713 6860
E-mail address Responsible/issuing person	:	RegulatoryComplianceROP@velogy.com

1.4 Emergency telephone number

Velogy Polyoléfines France SAS	+33 (0) 4 42 74 42 74
MUO Polyolefine GmbH	+49 (0) 8402 76112
Rotterdam Olefins & Polyolefins B.V.	+32 3 575 1235

Poison Center:

National Poisons Information Center (NVIC)

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NL: +31 (0)88 755 8000
24 hours all days

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable gases, Category 1	H220: Extremely flammable gas.
Gases under pressure, Compressed gas	H280: Contains gas under pressure; may explode if heated.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements :

H220	Extremely flammable gas.
H280	Contains gas under pressure; may explode if heated.
H336	May cause drowsiness or dizziness.

Precautionary statements :

Prevention:

P261	Avoid breathing gas.
P271	Use only outdoors or in a well-ventilated area.

Response:

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

Storage:

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

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

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

May cause frostbite.

May displace oxygen and cause rapid suffocation.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : Ethylene

EC-No. : 200-815-3 (EINECS)

Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)	M-Factor, SCL, ATE
Ethylene	74-85-1 200-815-3	>= 90 - <= 100	

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : This product is of low acute toxicity.
Simple asphyxiant, high concentrations can displace oxygen and cause drowsiness and dizziness.
May produce runny nose, sneezing, nasal congestion and nasal itching.
Possible cardiac sensitization.
Contact with liquid may cause frostbite.
Remove contaminated clothes except in the case of frostbite.
Always observe self-protection methods
Move out of dangerous area.
Get medical attention immediately.
Do not leave the victim unattended.
Show this material safety data sheet to the doctor in attendance.

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|-------------------------|--|
| If inhaled | : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Keep patient warm and at rest.
If breathing is difficult, give oxygen.
If unconscious, place in recovery position and seek medical advice.
In the event of unconsciousness, apnea or cardiac arrest (no pulse), apply cardiopulmonary resuscitation. |
| In case of skin contact | : Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.
If frostbite has occurred, seek medical attention immediately; do not rub the affected area or flush with water. To prevent further damage, do not attempt to remove frozen clothing from affected area. If frostbite has not occurred, immediately and thoroughly wash contaminated skin with soap and water. |
| In case of eye contact | : Direct contact with liquified gas may cause severe and possibly permanent eye injury due to frostbite from rapid liquid evaporation.
If eye tissue is frozen, seek medical attention immediately. If tissue is not frozen, thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists seek medical attention. |
| If swallowed | : Not applicable (gas). |

4.2 Most important symptoms and effects, both acute and delayed

- | | |
|----------|--|
| Symptoms | : High vapor concentrations may cause central nervous system (CNS) depression with symptoms such as nausea, dizziness, weakness, headache, loss of coordination, loss of consciousness, coma and death. |
| Risks | : Simple Asphyxiant.
Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias (irregular beating) in persons exposed to this material.
Skin or eye contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite. |

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|-----------|---|
| Treatment | : Treat symptomatically.
Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.
Treat frost-bitten areas as needed. |
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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : SMALL FIRE:
Dry chemical.
CO2.

LARGE FIRES:
Use water spray or fog

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Keep away from all ignition sources! This gas readily forms flammable mixtures with air at well below ambient temperatures. When exposed to an ignition source, it will burn in the open or explode in confined spaces.
DO NOT extinguish a leaking gas fire unless leak can be stopped. Explosive atmosphere could form. Evacuate area and fight fire from a maximum distance or use unmanned hose holders or monitor nozzles. Containers can build up pressure if exposure to heat; cool with flooding quantities of water until well after the fire is out. DO NOT direct water at source of leak or pressure relief devices, icing may occur. Withdraw immediately in case of rising sound from venting safety devices or discoloration of vessel. Always stay away from the ends of "bullet" tanks.
Contents under pressure.
Sustained fire attack on vessels may result in a Boiling Liquid Expanding Vapour Explosion (BLEVE).
Move containers from fire area if it can be done without risk.
Potential explosion hazard from reignition, if fire is put out without shutting off source.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Thermal decomposition may produce oxides of carbon and other toxic gases and liberate heat and pressure.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus and firefighter turnout gear. Structural firefighter's protective clothing will only provide limited protection. Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear recommended personal protective equipment.
Ensure adequate ventilation.
Eliminate all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
Enter area only if strictly necessary. A combustible gas detector can be used to check for flammable gas or vapors.
See section 8 for additional PPE information.
See section 13 for disposal information.

6.2 Environmental precautions

Environmental precautions : Prevent entry into waterways, sewers, basements or confined areas.
Prevent further leakage or spillage if safe to do so.
An authoritative evaluation of environmental exposure and risk indicates that no special risk management practices are needed to control environmental release.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Extremely flammable.
Eliminate all sources of ignition.
Let evaporate.
If possible, turn leaking container so that gas escapes rather than liquid.
Do not direct water at spill or source of leak.
Use water spray curtain to divert vapor drift.
Prevent entry into waterways, sewers, basements or confined areas.
All equipment used when handling this product must be grounded.
Do not touch or walk through spilled material.
Stop leak if you can do it without risk.
Suppress (knock down) gases/vapors/mists with a water spray jet.
Water spray may reduce vapor; but may not prevent ignition in closed spaces.
Spillages of liquid product in the water will likely result in a quick and complete vaporization of the product. Isolate the area and prevent fire/explosion hazard for ships and other structures, taking into account wind direction and speed, until the product is completely dispersed.
Note: recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. For this reason, local experts should be consulted when neces-

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sary. Local regulations may also prescribe or limit actions to be taken.

6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Keep away from all sources of ignition.
Wear recommended personal protective equipment.
Keep container tightly closed when not in use.
While moving cylinder, always keep in place removable valve cover.
Securely chain cylinders when in use and protect against physical damage.
If inspection shows cylinders in poor condition, immediately contact supplier.
Sudden release of this material from pressurized vessels may result in cryogenic burns (frostbite).
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).
Use only non-sparking tools.
Bond and ground all equipment before transferring this material from one container to another.
Use only in well ventilated areas.

Hygiene measures : Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use.
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities.

Fire-fighting class : Extremely flammable gas.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Compressed gases should be stored in a separate safety storage cabinet or room. Keep away from direct sunlight.
Empty containers may contain flammable product residues.
Do not weld, solder, drill, cut or perform similar operations on or near containers. Ensure that all relevant regulations regarding explosive atmosphere, and handling and storage facilities of flammable products are followed.

7.3 Specific end use(s)

Specific use(s) : See Section 1.2.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Both local exhaust and good general room ventilation must be provided not only to control exposure but also to prevent formation of flammable mixtures.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection : Safety glasses and face shield are recommended when handling compressed gas.
Use chemical type goggles and face shield when handling liquefied gases.
The selected goggles or glasses must satisfy the European norm standard EN 166.

Hand protection

Remarks : Wear insulated gloves if contact with liquid is possible. The selected gloves must satisfy the European norm standard EN 511 for protection against the cold.

Skin and body protection : Clothing such as insulated impervious gloves to protect against exposure to cold liquid or gas should be worn.
Fire retardant clothing is appropriate for routine occupational use.
The selected clothing must satisfy the European norm standard EN 533.

Respiratory protection : Use appropriate respiratory protection where atmosphere exceeds recommended limits.
Use only approved supplied air or self-contained breathing apparatus operated in positive pressure mode.
If needed, wear a supplied air respirator conforming to a European norm standard such as EN 139 or equivalent.

Environmental exposure controls

Water : Maritime spillages should be dealt with according to a Ship-board Oil Pollution Emergency Plan (SOPEP), as required by MARPOL Annex1 Regulation 26.
If the product contaminates rivers and lakes or drains inform respective authorities.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	gaseous (20 °C, 1,013 hPa)
Form	:	Compressed gas
Colour	:	colorless
Odour	:	No Data Available.
Melting point/range	:	-169.15 °C
Boiling point/boiling range	:	-103.77 °C
Upper explosion limit / Upper flammability limit	:	Upper flammability limit 36 vol%
Lower explosion limit / Lower flammability limit	:	Lower flammability limit 2.7 vol%
Flash point	:	Not applicable (gas).
Decomposition temperature	:	Thermal decomposition may produce oxides of carbon and other toxic gases and liberate heat and pressure.
pH	:	Not applicable.
Viscosity Viscosity, dynamic	:	Not applicable (gas).
Solubility(ies) Water solubility	:	0.131 g/l (25 °C)
Partition coefficient: n-octanol/water	:	log Pow: 1.13 (20 °C)
Vapour pressure	:	2,120 hPa (-90 °C)

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Density : 0.5678 - 3 g/cm³ (-104 °C)

9.2 Other information

Explosives : Not applicable.

(No chemical groups associated with explosive properties.)

Oxidizing properties : Not applicable.

Highly flammable.

Self-ignition : 450 °C

Surface tension : Not expected or predicted based on structural considerations

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

This material is stable when properly handled and stored.

10.3 Possibility of hazardous reactions

Hazardous reactions : Will polymerize only at elevated temperatures and pressure in the presence of a catalyst.
Vapors may form explosive mixture with air. The product is stable.

10.4 Conditions to avoid

Conditions to avoid : Heat, sparks, open flame, and other ignition sources.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents
Halogenated compounds

10.6 Hazardous decomposition products

Carbon Monoxide and Carbon dioxide.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

Components:

Ethylene:

Acute oral toxicity	:	Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity	:	LC50 (Rat): > 57000 ppm Exposure time: 4 HOURS Test atmosphere: gas
Acute dermal toxicity	:	Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

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

Components:

Ethylene:

Assessment	:	No skin irritation
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Serious eye damage/eye irritation

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

Components:

Ethylene:

Assessment	:	No eye irritation
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Respiratory or skin sensitisation

Skin sensitisation

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

Respiratory sensitisation

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

Components:

Ethylene:

Assessment	:	Did not cause sensitization on laboratory animals.
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Germ cell mutagenicity

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

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Components:

Ethylene:

Germ cell mutagenicity- Assessment : Did not show mutagenic effects in animal experiments.

Carcinogenicity

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

Components:

Ethylene:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Reproductive toxicity

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

Components:

Ethylene:

Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.

STOT - single exposure

May cause drowsiness or dizziness.

Components:

Ethylene:

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

STOT - repeated exposure

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

Components:

Ethylene:

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

Aspiration hazard

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

Components:

Ethylene:

No aspiration toxicity classification

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11.2 Information on other hazards

Endocrine disrupting properties

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

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Ethylene:

Toxicity to fish	: LC50 (Fish): 126 mg/l Exposure time: 96 HOURS Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.
Toxicity to daphnia and other aquatic invertebrates	: LC50 (Daphnia (water flea)): 62.4 mg/l Exposure time: 48 HOURS Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.
Toxicity to algae/aquatic plants	: ErC50 (Selenastrum capricornutum (green algae)): 72.2 mg/l Exposure time: 72 HOURS
Toxicity to fish (Chronic toxicity)	: NOEC: 12.385 mg/l Exposure time: 30 d Species: fish. Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 6.31 mg/l Exposure time: 16 d Species: Daphnia magna (Water flea) Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

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12.2 Persistence and degradability

Components:

Ethylene:

Biodegradability : Result: Readily biodegradable.

Stability in water : Remarks: no data available

12.3 Bioaccumulative potential

Components:

Ethylene:

Bioaccumulation : Bioconcentration factor (BCF): 4 - 40
Method: estimated
Remarks: Bioaccumulation is unlikely.

12.4 Mobility in soil

Product:

Mobility : Remarks: no data available

Components:

Ethylene:

Stability in soil : Remarks: no data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Components:

Ethylene:

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Environmental fate and pathways : no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Contaminated product, soil, water, container residues and spill cleanup materials may be hazardous wastes.
Contaminated product, soil or water should be considered dangerous due to potential evolution of flammable vapor.
Proper grounding procedures to avoid static electricity should be followed.
The product should not be allowed to enter drains, water courses or the soil.

SECTION 14: Transport information

14.1 UN number or ID number

ADR	: UN 1962
RID	: UN 1962
IMDG	: UN 1962

14.2 UN proper shipping name

ADR	: ETHYLENE
RID	: ETHYLENE
IMDG	: ETHYLENE

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADR	: 2	2.1
RID	: 2	2.1
IMDG	: 2.1	

14.4 Packing group

ADR	
Packing group	: Not assigned by regulation
Classification Code	: 2F
Hazard Identification Number	: 23
Labels	: 2.1
Tunnel restriction code	: B/D
RID	

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Packing group : Not assigned by regulation
Classification Code : F
Hazard Identification Number : 23
Labels : 2.1

IMDG

Packing group : Not assigned by regulation
Labels : 2.1
EmS Code : F-D, S-U

14.5 Environmental hazards

ADR

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 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.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Conditions of restriction for the following entries should be considered: Number on list 40
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	: Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).	: Contains no REACH candidate substance above 0.1%
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	: Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	: Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	: Contains no substance(s) listed on REACH XIV (Authorisation List)

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Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Not applicable

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

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

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory
AIIC	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
REACH	: If the product has been purchased from Rotterdam Olefins & Polyolefins B.V., we confirm that the chemical substances in this product have been registered under REACH, in accordance with the deadlines set forth in REACH. (Regulation (EU) No. 1907/2006).
NZIoC	: On the inventory, or in compliance with the inventory
TECI	: On the inventory, or in compliance with the inventory
CH BAGREG	: On the inventory, or in compliance with the inventory
MXINSQ	: On the inventory, or in compliance with the inventory
NCI	: On the inventory, or in compliance with the inventory
UKREACH	: If the product has been purchased from Rotterdam Olefins & Polyolefins B.V., we confirm that the chemical substances in this product have been notified with a DUIN or, where required under UK-REACH, registered, and that we have the intention to proceed with any required registration in accordance with the deadlines set forth in the regulation REACH etc. (Amendment etc.) (EU Exit) Regulations 2019.

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according to Regulation (EC) No. 1907/2006, as amended by
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KKDIK : If the product has been purchased from Rotterdam Olefins & Polyolefins B.V., we confirm that the chemical substances in this product have been pre-registered or, where required under KKDIK, registered, and that we have the intention to proceed with any required registration in accordance with the deadlines set forth in the regulation.

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Full text of H-Statements

Full text of other abbreviations

Flam. Gas	: Flammable gases
Press. Gas	: Gases under pressure
STOT SE	: Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; GHS - Globally Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA

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- Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

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.

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