

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

1.1. Product identifier

Code: 411 00 10700-2692
Product name: NO STOP

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

Intended use: Repair car tires in aerosol

1.3. Details of the supplier of the safety data sheet

Name: Meccanocar Italia S.r.l.
Full address: Via San Francesco, 22
District and Country: 56033 Capannoli (PI)
Italy

Tel. +39 0587 609433

Fax +39 0587 607145

e-mail address of the competent person
responsible for the Safety Data Sheet

moreno.meini@meccanocar.it

1.4. Emergency telephone number

For urgent inquiries refer to

National Poisons Information Service: +44 121 507 4123

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Aerosol, category 1

H222

Extremely flammable aerosol.

H229

Pressurised container: may burst if heated.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Danger

Hazard statements:

H222 Extremely flammable aerosol.
H229 Pressurised container: may burst if heated.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251 Do not pierce or burn, even after use.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P211 Do not spray on an open flame or other ignition source.

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
PROPANE		
CAS 74-98-6	$27 \leq x < 28,5$	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
EC 200-827-9		
INDEX 601-003-00-5		
Reg. no. 01-2119486944-21-XXXX		
HYDROCARBONS C4		
CAS 87741-01-3	$18 \leq x < 19,5$	Flam. Gas 1A H220, Press. Gas H280, Classification note according to Annex VI to the CLP Regulation: H K U
EC 289-339-5		
INDEX 649-113-00-2		
Reg. no. 01-2119475607-28-XXXX		
ETHANEDIOL		
CAS 107-21-1	$6 \leq x < 7$	Acute Tox. 4 H302, STOT RE 2 H373
EC 203-473-3		
INDEX 603-027-00-1		
Reg. no. 01-2119456816-28-XXXX		
AMINE, C12-14 (EVEN NUMBER) - ALKYLDIMETHYL, N-OXIDES		

open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up

Use inert absorbent material to soak up leaked product. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition, published 2018)
ITA	Italia	DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017
NOR	Norge	Fastsatt av Arbeids- og sosialdepartementet 21. august 2018 med hjemmel i lov 17. juni 2005 nr. 62 om arbeidsmiljø, arbeidstid, stillingsvern mv. (arbeidsmiljøloven) § 1-3, § 1-4 og § 4-5
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018

	systemic	systemic	systemic
Inhalation	7 mg/m3		35 mg/m3
Skin	53 mg/kg bw/d		106 mg/kg bw/d
AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES			
Predicted no-effect concentration - PNEC			
Normal value in fresh water	0,034	mg/l	
Normal value in marine water	0,003	mg/l	
Normal value for fresh water sediment	5,24	mg/kg	
Normal value for marine water sediment	0,524	mg/kg	
Normal value of STP microorganisms	24	mg/l	
Normal value for the food chain (secondary poisoning)	11,1	mg/kg	
Normal value for the terrestrial compartment	1,02	mg/kg	

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,44 mg/kg bw/d				
Inhalation				1,53 mg/m3				6,2 mg/m3
Skin				5,5 mg/kg bw/d				11 mg/kg bw/d

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

None required.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with

environmental standards.

HYDROCARBONS C4

Wear insulating gloves if contact with liquid is possible. The gloves selected must meet the European standard EN 511 for protection from the cold.

AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES

The glove material has to be impermeable and resistant to the product / the substance / the Preparation. PVC gloves

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	aerosol
Colour	white
Odour	characteristic
Odour threshold	Not available
pH	10
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	< 0 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	0,65
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	> 175 °C
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Information not available

SECTION 10. Stability and reactivity**10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

ETHANEDIOL

In the air absorbs moisture. Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

HYDROCARBONS C4

Vapors can form an explosive mixture with air

ETHANEDIOL

Risk of explosion on contact with: perchloric acid. May react dangerously with: chlorosulphuric acid, sodium hydroxide, sulphuric acid, phosphorus pentasulphide, chromium (III) oxide, chromyl chloride, potassium perchlorate, potassium dichromate, sodium peroxide, aluminium. Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating.

HYDROCARBONS C4

Heat, sparks, open flames, other sources of ignition and oxidizing conditions

ETHANEDIOL

Avoid exposure to: sources of heat, naked flames.

AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES

To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

HYDROCARBONS C4

Strong oxidizing agents, halogenated hydrocarbons, nitrogen dioxide, fluorine compounds, halogens (bromine, chlorine, fluorine), metal catalysts

AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES

Dangerous reactions

Reacts with acids, alkalis and oxidizing agents.

10.6. Hazardous decomposition products

HYDROCARBONS C4

Thermal decomposition can produce carbon oxides and other toxic gases and release heat and pressure

ETHANEDIOL

May develop: hydroxyacetaldehyde, glyoxal, acetaldehyde, methane, carbon monoxide, hydrogen.

AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES

Carbon monoxide and carbon dioxide

Nitrogen oxides (NOx)

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

ETHANEDIOL

WORKERS: inhalation; contact with the skin.

POPULATION: inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

ETHANEDIOL

Ingestion initially stimulates the central nervous system; later replaced by a phase of depression. There may be kidney damage, with anuria and uremia. Over-exposure symptoms are: vomiting, drowsiness, difficulty in breathing, convulsions. The lethal dose for humans is approx. 1.4 ml/kg.

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:
Not classified (no significant component)
LD50 (Oral) of the mixture:
>2000 mg/kg
LD50 (Dermal) of the mixture:
Not classified (no significant component)

ETHANEDIOL

LD50 (Oral) > 2000 mg/kg Rat

LD50 (Dermal) 9530 mg/kg Rabbit

PROPANE

Method: To study the concentrations at which the effects of the CNS occur following exposure by inhalation to propane by measuring LC50 (15 min) and EC50 (CNS) (10 min) in rats.

Reliability: 2

Species: Rat (Alderley Park (SPF); male / female)

Route of exposure: Inhalation

Results: LC50> 800 000 ppm

HYDROCARBONS C4

Method: Not indicated-Read across

Reliability: 2

Species: Rat (Alderley Park; male / female)

Route of exposure: Inhalation

Results: LC50 = 1443 mg / L air

AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES

Method: OECD Guideline 401

Reliability: 2

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Oral

Results: LD50 3 800 mg / kg bw

Method: EU Method B.3

Reliability: 2

Species: Rat (CD / CrI: CD (SD); male / female)

Route of exposure: Dermal

Results: LD50> 2 000 mg / kg bw

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

NO STOP**AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES**

Method: OECD Guideline 405

Reliability: 2

Species: Rabbit (New Zealand White)

Route of exposure: Ocular

Results: Positive, category 1

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

PROPANE

Method: OECD 471 in vitro test

Reliability: 1

Species: Histidine Salmonella

Results: Negative with or without metabolic activation

Method: OECD 474-test in vivo

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation (gas)

Results: Negative

HYDROCARBONS C4

Method: OECD 471-in vitro test-Read across

Reliability: 1

Species: S. typhimurium

Results: Negative with and without metabolic activation

Method: Not indicated - in vivo test - Read across

Reliability: 2

Species: Rat (Fischer 344; male)

Route of exposure: Inhalation (gas)

Results: Negative

ETHANEDIOL

Method: OECD 471 in vitro test

Reliability: 1

Species: S. typhimurium

Results: Negative with and without metabolic activation

Method: Assessing the possible effects of ethylene glycol for reproduction and dominant lethal mutagenesis.-test in vivo

Reliability: 2

Species: Rat (Fischer 344; male / female)

Route of exposure: Oral

Results: Negative

AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES

Method: OECD Guideline 487_test in vitro

Reliability: 1

Species: Human

Results: Negative

Method: Equivalent or similar to OECD Guideline 478-test in vivo

Reliability: 2
Species: mouse (C3D2F1 / J; male)
Route of exposure: Oral
Results: Negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

HYDROCARBONS C4

Method: Equivalent or similar to EPA OPP 83-5-Read across
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Oral
Results: Negative

ETHANEDIOL

Available studies have shown no carcinogenic potential. In a carcinogenicity study lasting two years, carried out by the US National Toxicology Program (NTP), in which ethylene glycol was administered in the feed, "no evidence of carcinogenic activity" in male and female B6C3F1 mice was observed (NTP, 1993).

AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES

Method: Equivalent or similar to OECD Guideline 451
Reliability: 1
Species: Rat (Charles River; male / female)
Route of exposure: Oral
Results: NOEL 0.2

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

PROPANE

Method: OECD 413
Reliability: 1
Species: Rat (Sprague-Dawley CD; male / female)
Route of exposure: Inhalation
Results: NOAEC (fertility) 10 000 ppm

HYDROCARBONS C4

Method: OECD 422
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (gas)
Results: Negative, NOAEC (fertility) = 16000 ppm

AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES

Method: equivalent or similar to an OECD 416 guideline
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: NOAEL 375 ppm

Negative effects on the development of offspring
PROPANE

Method: OPPA EPA 870.3700

Reliability: 1

Species: Rat (VAF / Plus®, Sprague-Dawley Derived (CD®) CrI: CD® IGS BR)

Route of exposure: inhalation (gas)

Results: NOAEC (development) 10 426 ppm

HYDROCARBONS C4

Method: OECD 414

Reliability: 1

Species: Rat (Sprague-Dawley)

Route of exposure: inhalation (gas)

Results: negative, NOAEC (development) = 10426 ppm

AMINA, C12-14 (ALSO NUMBER) -ALKYLDIMETHYL, N-OXIDES

Method: equivalent or similar to an OECD 414 guideline

Reliability: 1

Species: Rat (Sprague-Dawley)

Route of exposure: Oral

Results: LOAEL 200 mg / kg body weight / day

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

PROPANE

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

HYDROCARBONS C4

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

ETHANEDIOL

Based on available data and through expert judgment, the substance is classified in the target organ toxicity class for single exposure.

AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES

Based on available data and through expert judgment, the substance is not classified in the target organ toxicity class for single exposure.

Target organ
ETHANEDIOL

Kidney

Route of exposure
ETHANEDIOL

Oral

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

PROPANE

Method: OECD 422

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Inhalation (gas)

Results: NOAEC 16 000 ppm

HYDROCARBONS C4

Method: OECD 413

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Inhalation (gas)

Results: Negative, NOAEC = 10000 ppm

ETHANEDIOL

Method: OECD 410

Reliability: 1

Species: Dog (Beagle; male / female)

Route of exposure: Dermal

Results: NOAEL > 2 200 - < 4 400 mg / kg bw / day

AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES

Method: Equivalent or similar to OECD Guideline 408

Reliability: 2

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Oral

Results: NOAEL 0.1 mg / kg diet

Method: Equivalent or similar to OECD Guideline 411

Reliability: 2

Species: Mouse (ICR- Swiss CD-1; male / female)

Route of exposure: Dermal

Results: LOEL 0.27

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity

AMINE, C12-14 (EVEN NUMBER) -
ALKYLDIMETHYL, N-OXIDES

LC50 - for Fish

2,67 mg/l/96h

EC50 - for Crustacea

3,1 mg/l/48h

EC50 - for Algae / Aquatic Plants	0,143 mg/l/72h
LC10 for Fish	0,42 mg/l/96h
EC10 for Crustacea	0,7 mg/l/28d
EC10 for Algae / Aquatic Plants	0,067 mg/l/72h
Chronic NOEC for Fish	0,42 mg/l
Chronic NOEC for Crustacea	0,7 mg/l
Chronic NOEC for Algae / Aquatic Plants	0,067 mg/l

12.2. Persistence and degradability

ETHANEDIOL

AMINE, C12-14 (EVEN NUMBER) -ALKYLDIMETHYL, N-OXIDES

Quickly biodegradable, 72% in 8 days.

PROPANE

Solubility in water 0,1 - 100 mg/l

Rapidly degradable

ETHANEDIOL

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

PROPANE

Partition coefficient: n-octanol/water 1,09

ETHANEDIOL

Partition coefficient: n-octanol/water -1,36

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations**13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

HYDROCARBONS C4

- Comply with applicable local, state or international regulations regarding the disposal of solid or hazardous waste and / or disposal of containers.
- Contaminated product, soil, water, container residues and spill cleaning materials can be hazardous waste.
- The contaminated product, soil or water must be considered dangerous due to the potential evolution of flammable vapor.
- Follow appropriate grounding procedures to avoid static electricity.
- The product must not be allowed to enter drains, water courses or the soil.

SECTION 14. Transport information**14.1. UN number**

ADR / RID, IMDG, 1950
IATA:

14.2. UN proper shipping name

ADR / RID: AEROSOLS
IMDG: AEROSOLS
IATA: AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR / RID: Class: 2 Label: 2.1
IMDG: Class: 2 Label: 2.1
IATA: Class: 2 Label: 2.1

**14.4. Packing group**

ADR / RID, IMDG, -
IATA:

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID: HIN - Kemler: --

Limited
Quantities: 1
L

Tunnel
restriction
code: (D)

IMDG: Special Provision: -

EMMS: F-D, S-U

Limited
Quantities: 1

IATA:	Cargo:	L	Maximum quantity: 150	Packaging instructions: 203
	Pass.:	Kg	Maximum quantity: 75	Packaging instructions: 203
	Special Instructions:	Kg	A145, A167, A802	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso Category - Directive 2012/18/EC: P3a

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

<u>Product</u>	
Point	40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Information not available

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Gas 1A	Flammable gas, category 1A
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Press. Gas (Liq.)	Liquefied gas
Press. Gas	Pressurised gas
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H280	Contains gas under pressure; may burst if heated.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit

- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
 4. Regulation (EU) 2015/830 of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
 13. Regulation (EU) 2017/776 (X Atp. CLP)
 14. Regulation (EU) 2018/669 (XI Atp. CLP)
 15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
 16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - IFA GESTIS website
 - ECHA website
 - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Product's classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12.

The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous review:

The following sections were modified:

02 / 03 / 08 / 09 / 10 / 11 / 12 / 13 / 15 / 16.