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14 - Anti-spatter CO2 for welding 300 ml
Code: 2910

Safety Data Sheet

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

1.1. Product identifier

Code: **N506/ONLY**

Product name **Anti-spatter CO2 for welding 300 ml**

Chemical name and synonym **Anti-spatter**

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

Intended use **Anti-spatter CO2 for welding for professional uses.**

Identified Uses	Industrial	Professional	Consumer
Industrial Use			
Professional Use	-	✔	-
		-	-

1.4. Emergency telephone number

For urgent inquiries refer to

Centro Antiveleni di Pavia: 0382 24444 (IRCCS Fondazione Maugeri - Pavia)
Centro Antiveleni di Bergamo: 800 883300 (Ospedali Riuniti - Bergamo)
Centro Antiveleni di Firenze: 055 7947819 (Ospedale Careggi - Firenze) Centro Antiveleni di Roma: 06 3054343 (Policlinico Gemelli - Roma)
Centro Antiveleni di Napoli: 081 7472870 (Ospedale Cardarelli - Napoli)
Centro de Información Toxicológica en España: 91 5620420 (Inst. Nacional de Toxicología y Ciencias Forenses)
Centre Antipoison en France: 01 40054848 (Centre Antipoison et de Toxicovigilance de Paris)
Pomorskie Centrum Toksykologii ul. Kartuska 4/6, 80-104 Gdańsk tel./fax: (58) 682 04 04
American Association of Poison Control Centers: +1 (800) 222-1222
Giftkontrollzentrum Berlin, Brandenburg 030 –
19 240

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 3	H229	Pressurised container: may burst if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Eye irritation, category 2 H319 Skin irritation, category 2 H315		Causes serious eye irritation. Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

2.2. Label elements

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

Signal words: Warning

Hazard statements:

H229	Pressurised container: may burst if heated.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements:

P102	Keep out of reach of children.
P201	Obtain special instructions before use.
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.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C / 122°F.

Hazard pictograms:

Contains: DICHLOROMETHANE

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

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
DICHLOROMETHANE		
CAS 75-09-2 EC 200-838-9	75 ≤ x < 79	Carc. 2 H351, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, STOT SE 3 H336

INDEX 602-004-00-3		
Reg. no. 01-2119480404-41-XXXX		
Benzene, mono-C10-13-alkyl derivs., distn. residues CAS 84961-70-6	5 ≤ x < 7	Asp. Tox. 1 H304
EC 284-660-7		
INDEX -		
Reg. no. 01-2119485843-26-0008		
CARBON DIOXIDE		
CAS 124-38-9	5 ≤ x < 7	Substance with a community workplace exposure limit.
EC 204-696-9		
INDEX -		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 5,00 %

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained 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

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
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:

DEU	Deutschland	TRGS 900 (Fassung 31.1.2018 ber.) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 7 czerwca 2017 r
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 - Diaro da Republica I 26; 2012-02-06
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2018

DICHLOROMETHANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min			
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	260	75	1040	300		
VLA	ESP	177	50				
VLEP	FRA	178	50	336	100	SKIN	
WEL	GBR	350	100	1060	300	SKIN	
NDS	POL	88		353			SKORA
OEL	EU	353	100	706	200	SKIN	
TLV-ACGIH		174	50				

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,31	mg/l
Normal value in marine water	0,031	mg/l
Normal value for fresh water sediment	2,57	mg/kg
Normal value for marine water sediment	0,26	mg/kg/d
Normal value for water, intermittent release	0,27	mg/l
Normal value of STP microorganisms	26	mg/l

Normal value for the terrestrial compartment	0,33	mg/kg

Health - Derived no-effect level - DNEL / DMEL	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation						706 mg/m3		353 mg/m3
Skin								12 mg/kg/d

Benzene, mono-C10-13-alkyl derivs., distn. residues

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		57				INHAL

Predicted no-effect concentration - PNEC		
Normal value in fresh water	75	ng/l
Normal value in marine water	7,5	ng/l
Normal value for fresh water sediment	1,65	mg/kg/d
Normal value for marine water sediment	165	mg/kg/d

Normal value of STP microorganisms				2	mg/l			
Normal value for the terrestrial compartment				329	µg/kg/d			
Health - Derived no-effect le	**el - DNEL / DMEL** Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		230 µg/kg bw/day				
Inhalation	NPI	NPI	NPI	1,6 mg/m3	NPI	NPI	NPI	3,2 mg/m3
Skin	NPI	NPI	NPI	2,2 mg/kg bw/d	NPI	NPI	NPI	4,3 mg/kg bw/d

CARBON DIOXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min				
		mg/m3	ppm	mg/m3	ppm			
AGW	DEU	9100	5000	18200	10000			
MAK	DEU	9100	5000	18200	10000			
VLA	ESP	9150	5000					
WEL	GBR	9150	5000	27400	15000			
VLEP	ITA	9000	5000					
NDS	POL	9000		27000				
VLE	PRT	9000	5000					
OEL	EU	9000	5000					
TLV-ACGIH		9000	5000	54000	30000			

DIISONONYL PHTHALATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min				
		mg/m3	ppm	mg/m3	ppm			
WEL	GBR	5						
Predicted no-effect concentration - PNEC								
Normal value for the terrestrial compartment				30	mg/kg/d			
Health - Derived no-effect le	**el - DNEL / DMEL** Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				4,4 mg/kg bw/d				
Inhalation				15,3 mg/m3				51,72 mg/m3

Skin	220 bw/d mg/kg	366 bw/d mg/kg

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.

TLV of solvent mixture: 174 mg/m3

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.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION
None required.

SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC 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 A 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.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	aerosol straw-coloured
Colour	characteristic of solvent
Odour	Not available
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not applicable
Boiling range	Not available
Flash point	not flammable
Evaporation Rate	
Flammability of solids and gases	
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	584 hPa
Vapour density	9-12
Relative density	(residuo secco) a 20°C 1.33 ÷ 1.37 g/ml
Solubility	g/ml
Partition coefficient: n-octanol/water	insoluble in water
Auto-ignition temperature	Not available
Decomposition temperature	> 605 °C
Viscosity	Not available (ASTM D 445) 11 ÷ 24 cst (residuo secco) a 50 C°
Explosive properties	not applicable
Oxidising properties	not applicable

9.2. Other information

Total solids (250°C / 482°F)	10,07 %
VOC (Directive 2010/75/EC) :	84,93 % - 1.146,56 g/litre
VOC (volatile carbon) :	15,66 % - 211,39 g/litre

SECTION 10. Stability and reactivity

10.1. Reactivity

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

DICHLOROMETHANE

Decomposes at temperatures above 120°C/248°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.

DICHLOROMETHANE

Risk of explosion on contact with: alkaline metals,nitric acid,aluminium powder,ethanediamine,aluminium chloride,perchloric acid,dinitrogen pentoxide,sodium nitride,n-nitroso n-methylurea,potassiun hydroxide.May react dangerously with: alkaline earth metals,metal powders,sodium amides,potassium tert-butylate.May form explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating.

DICHLOROMETHANE

Avoid exposure to: naked flames,overheated surfaces.

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

DICHLOROMETHANE

Incompatible with: aluminium,magnesium,sodium,potassium,nitric acid,caustic substances,strong oxidants.

10.6. Hazardous decomposition products

DICHLOROMETHANE

May develop: dioxins,phosgenes,hydrochloric acid.

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
Information not available

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

DICHLOROMETHANE

The acute toxic effect on humans causes cognitive disorders, if inhaled in large doses. At 200-500 ppm, nausea, vomiting, dizziness, paresthesia, fatigue and headache appear. Skin contact causes pain, which soon disappears without leaving any burns. Prolonged contact may cause chemical burns. Contact with the eyes causes superficial lesions of the cornea. Cases of dermatosis may ensue from repeated contact.

Interactive effects

Information not available
ACUTE TOXICITY
LC50 (Inhalation) of the mixture:
Not classified (no significant component) LD50 (Oral) of the mixture:
Not classified (no significant component) LD50 (Dermal) of the mixture:
Not classified (no significant component)

DICHLOROMETHANE

LD50 (Oral) > 2000 mg/kg Rat

LD50 (Dermal) > 2000 mg/kg Rat

LC50 (Inhalation) > 40 mg/l/7h mouse

Benzene, mono-C10-13-alkyl derivs., distn. residues

LD50 (Oral) > 2000 mg/kg rat

LD50 (Dermal) > 2000 mg/kg rat

SKIN CORROSION / IRRITATION

Causes skin irritation
SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation
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

CARCINOGENICITY

Suspected of causing cancer

DICHLOROMETHANE

Classified in Group 2A (probable human carcinogen) by the International Agency for Research on Cancer (IARC). Classified as "probable carcinogen" by the US National Toxicology Program (NTP) - (US DHHS, 2014).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class
STOT - SINGLE EXPOSURE

May cause respiratory irritation
May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD
Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

DICHLOROMETHANE	
LC50 - for Fish	193 mg/l/96h
EC50 - for Crustacea	> 20 mg/l/48h
Chronic NOEC for Fish	357 mg/l 8 days
Benzene, mono-C10-13-alkyl derivs., distn. residues	
EC50 - for Crustacea	1,4 mg/l/48h
Chronic NOEC for Crustacea	1,4 mg/l 48 h
Chronic NOEC for Algae / Aquatic Plants	2,08 mg/l 72 h

12.2. Persistence and degradability

DICHLOROMETHANE	
Solubility in water	13200 mg/l

Rapidly degradable

Benzene, mono-C10-13-alkyl derivs., distn. residues
NOT rapidly degradable

12.3. Bioaccumulative potential

DICHLOROMETHANE

Partition coefficient: n-octanol/water	1,25
BCF	2

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.

Product residues are considered hazardous special waste. Do not dispose of in wastewater.
Empty cylinders, although completely emptied, should not be dispersed in the environment.
The overheated aerosol container at a temperature above 50 °C may burst even if it contains a small gas residue. Waste transport may be subject to ADR.
Refer to applicable regulations.
European Waste Catalog (contaminated containers):
Aerosol as a household waste is excluded from the application of the above standard.
The exhausted commercial / industrial aerosol can be classified as: 15.01.10 *: packaging containing residues of dangerous or contaminated substances.

SECTION 14. Transport information

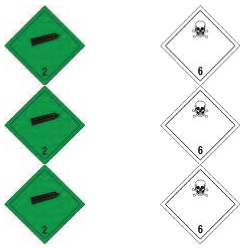
14.1. UN number

ADR / RID, IMDG, IATA:	1950

14.2. UN proper shipping name

ADR / RID:	AEROSOLS
IMDG:	AEROSOLS
IATA:	AEROSOLS, NON-FLAMMABLE, CONTAINING SUBSTANCE IN DIVISION 6.1

14.3. Transport hazard class(es)

ADR / RID:	Class: 2	Label: 2.2 (6.1)	
IMDG:	Class: 2	Label: 2.2 (6.1)	
IATA:	Class: 2	Label: 2.2 (6.1)	

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: -- Special Provision: -	Limited Quantities: 0,12 L	Tunnel restriction code: (D)
IMDG:	EMS: F-D, S-U	Limited Quantities: 0,12 L	
IATA:	Cargo: Maximum quantity: 150 Kg Pass.: Maximum quantity: 75 Kg Special Instructions: A145, A167,	Packaging instructions: 203 Packaging instructions: 203	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code A802

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: None

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

Contained substance

Point	59	DICHLOROMETHAN E Reg. no.: 012119480404-41- XXXX
Point	52	DIISONONYL PHTHALATE Reg. no.: 01-211943079828- XXXX

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

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

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

Aerosol 3	Aerosol, category 3
Carc. 2	Carcinogenicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H229	Pressurised container: may burst if heated.
H351	Suspected of causing cancer.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

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)
- 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.

Changes to previous review:
The following sections were modified:
08.