SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

PCB PLUS Cleanser

Creation date	25. November 2016		
Revision date	19. April 2018	Version	2.0

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

1.1. Product identifier — PCB PLUS Cleanser

Substance / mixture — mixture

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

mixture's intended use — Cleaning agent.

Disapproved uses of mixture — The product should not be used in ways other then those referred in Section 1.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Name or trade name	AG TermoPasty Grzegorz Gąsowski
Address	Kolejowa 33 E, Sokoły, 18-218 Poland
Identification number (ID)	200133730
VAT Reg No	9661767714
Phone	862741342
E-mail	biuro@termopasty.pl
Web address	www.termopasty.pl

Competent person responsible for the safety data sheet

Name	AG TermoPasty Grzegorz Gąsowski
E-mail	biuro@termopasty.pl

1.4. Emergency telephone number

National Health Service (NHS) 111
National poisoning information centre Scotland, NHS 24: 111

SECTION 2: Hazards identification

2.1. Substance or mixture classification

Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Aerosol 1, H222, H229
Eye Irrit. 2, H319
STOT SE 3, H336
Aquatic Chronic 3, H412

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

Extremely flammable aerosol. Pressurised container: May burst if heated.

Most serious adverse effects on human health and the environment

Causes serious eye irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram

Signal word

Danger

Hazardous substances

isopropanol
1-ethoxy-2-propanol
pentane
n-hexane
cyclohexane

Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

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.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
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.

2.3. Other hazards

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
Index: 601-003-00-5 CAS: 74-98-6 EC: 200-827-9	propane	27,5	Flam. Gas 1, H220	2
Index: 601-004-00-0 CAS: 106-97-8 EC: 203-448-7	butane	26,12	Flam. Gas 1, H220	1, 2, 4
Index: 603-117-00-0 CAS: 67-63-0 EC: 200-661-7	isopropanol	<20	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	
Index: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6	ethanol	<9	Flam. Liq. 2, H225	
Index: 603-177-00-8 CAS: 1569-02-4 EC: 216-374-5	1-ethoxy-2-propanol	<5	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H336	
Index: 601-006-00-1 CAS: 109-66-0 EC: 203-692-4	pentane	4,05	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411	1, 3
CAS: 109-87-5 EC: 203-714-2	dimethoxymethane	2,93-3,15	Flam. Liq. 2, H225	
Index: 601-037-00-0 CAS: 110-54-3 EC: 203-777-6	n-hexane	0,99-4,95	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Repr. 2, H361f STOT RE 2, H373 Aquatic Chronic 2, H411 Specific concentration limit: STOT RE 2, H373: C ≥ 5 %	3

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
Index: 601-017-00-1 CAS: 110-82-7 EC: 203-806-2	cyclohexane	<0,2475	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	3, 4
Index: 603-001-00-X CAS: 67-56-1 EC: 200-659-6	methanol	<0,2048	Flam. Liq. 2, H225 Acute Tox. 3, H301, H311, H331 STOT SE 1, H370 Specific concentration limit: STOT SE 1, H370: C ≥ 10 % STOT SE 2, H371: 3 % ≤ C < 10 %	3

Notes

1 Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

2 When put on the market gases have to be classified as "Gases under pressure", in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned:

Press. Gas (Comp.)
Press. Gas (Liq.)
Press. Gas (Ref. Liq.)
Press. Gas (Diss.)

Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).

3 Substance for which exposure limits of Community for working environment exist.

4 The use of the substance is restricted by Annex XVII of REACH Regulation.

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

Inhalation

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment if irritation, dyspnoea or other symptoms persist.

Skin contact

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible.

Eye contact

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes. Provide medical treatment, specialized if possible.

Ingestion

Unlikely.

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

Inhalation

May cause drowsiness or dizziness.

Skin contact

Not expected.

Eye contact

Causes serious eye irritation.

Ingestion

Irritation, nausea.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media
Water - full jet.

5.2. Special hazards arising from the substance or mixture
In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters
Use a self-contained breathing apparatus and full-body protective clothing. Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Closed containers with the product near the fire should be cooled with water. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Provide sufficient ventilation. Extremely flammable aerosol. Pressurised container: May burst if heated. Remove all ignition sources. Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale gases and vapours. Prevent contact with skin and eyes.

6.2. Environmental precautions
Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up
Ventilate the room. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water.

6.4. Reference to other sections
See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Prevent formation of gases and vapours in flammable or explosive concentrations and concentrations exceeding the occupational exposure limits. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. Use non-sparking tools. Use of antistatic clothes and footwear is recommended. Do not inhale gases and vapours. Prevent contact with skin and eyes. No smoking. Protect against direct sunlight. Do not pierce or burn, even after use. Wash hands and exposed parts of the body thoroughly after handling. Use only outdoors or in a well-ventilated area. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Avoid release to the environment.

7.2. Conditions for safe storage, including any incompatibilities
Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Store locked up. Protect from sunlight. Keep container tightly closed. Do not expose to temperatures exceeding 50 °C.

7.3. Specific end use(s)
not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
The mixture contains substances for which occupational exposure limits are set.

European Union

Substance name (component)	Type	Time of exposure	Value	Note	Source
pentane (CAS: 109-66-0)	OEL	8 hours	3000 mg/m³		EU limits
	OEL	8 hours	1000 ppm		
n-hexane (CAS: 110-54-3)	OEL	8 hours	72 mg/m³		EU limits

European Union

Substance name (component)	Type	Time of exposure	Value	Note	Source
n-hexane (CAS: 110-54-3)	OEL	8 hours	20 ppm		EU limits
cyclohexane (CAS: 110-82-7)	OEL	8 hours	700 mg/m³		EU limits
	OEL	8 hours	200 ppm		
methanol (CAS: 67-56-1)	OEL	8 hours	260 mg/m³		EU limits
	OEL	8 hours	200 ppm		

United Kingdom of Great Britain and Northern Ireland

Substance name (component)	Type	Time of exposure	Value	Note	Source
butane (CAS: 106-97-8)	WEL	8 hours	1450 mg/m³		GBR
	WEL	15 minutes	1810 mg/m³		
	WEL	8 hours	600 ppm		
	WEL	15 minutes	750 ppm		
isopropanol (CAS: 67-63-0)	WEL	8 hours	999 mg/m³		GBR
	WEL	15 minutes	1250 mg/m³		
	WEL	8 hours	400 ppm		
	WEL	15 minutes	500 ppm		
ethanol (CAS: 64-17-5)	WEL	8 hours	1920 mg/m³		GBR
	WEL	8 hours	1000 ppm		
pentane (CAS: 109-66-0)	WEL	8 hours	1800 mg/m³		GBR
	WEL	8 hours	600 ppm		
dimethoxymethane (CAS: 109-87-5)	WEL	8 hours	3160 mg/m³		GBR
	WEL	15 minutes	3950 mg/m³		
	WEL	8 hours	1000 ppm		
	WEL	15 minutes	1250 ppm		
n-hexane (CAS: 110-54-3)	WEL	8 hours	72 mg/m³		GBR
	WEL	8 hours	20 ppm		
cyclohexane (CAS: 110-82-7)	WEL	8 hours	350 mg/m³		GBR
	WEL	15 minutes	1050 mg/m³		
	WEL	8 hours	100 ppm		
	WEL	15 minutes	300 ppm		
methanol (CAS: 67-56-1)	WEL	8 hours	266 mg/m³	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	GBR
	WEL	15 minutes	333 mg/m³	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	

United Kingdom of Great Britain and Northern Ireland

Substance name (component)	Type	Time of exposure	Value	Note	Source
methanol (CAS: 67-56-1)	WEL	8 hours	200 ppm	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	GBR
	WEL	15 minutes	250 ppm	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	

DNEL

1-ethoxy-2-propanol

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	317 mg/m³	Systemic acute effects	
Consumers	Inhalation	19 mg/m³	Systemic acute effects	

ethanol

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Dermal	343 mg/kg	Local chronic effects	
Workers	Inhalation	950 mg/m³	Local chronic effects	

isopropanol

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Dermal	888 mg/kg	Systemic chronic effects	
Workers	Inhalation	500 mg/m³	Systemic chronic effects	
Consumers	Dermal	319 mg/kg	Systemic chronic effects	
Consumers	Inhalation	89 mg/m³	Systemic chronic effects	
Consumers	Oral	26 mg/kg	Systemic chronic effects	

PNEC

1-ethoxy-2-propanol

Route of exposure	Value	Determining method
Drinking water	10 mg/l	
Seawater	10 mg/l	
Sea sediments	37.6 mg/kg	
Freshwater sediment	37.6 mg/kg	
Microorganisms in wastewater treatment plants	1250 mg/l	
Soil (agricultural)	2.4 mg/kg	

ethanol

Route of exposure	Value	Determining method
Drinking water	0.96 mg/l	
Seawater	0.79 mg/l	
Freshwater sediment	3.6 mg/kg	

ethanol

Route of exposure	Value	Determining method
Microorganisms in wastewater treatment plants	580 mg/l	
Soil (agricultural)	0.63 mg/kg	

isopropanol

Route of exposure	Value	Determining method
Drinking water	140.9 mg/l	
Seawater	140.9 mg/l	
Freshwater sediment	552 mg/kg	
Sea sediments	552 mg/kg	
Soil (agricultural)	28 mg/kg	

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. If exposure limits cannot be observed in this mode, suitable protection of airways must be used. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles.

Skin protection

Hand protection: Protective gloves resistant to the product. Contaminated skin should be washed thoroughly.

Respiratory protection

Halfmask with a filter against organic vapours or a self-contained breathing apparatus as appropriate if exposure limit values of substances are exceeded or in a poorly ventilated environment.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Physical state	gas at 20°C
color	data not available
Odour	data not available
Odour threshold	data not available
pH	data not available
Melting point/freezing point	data not available
Initial boiling point and boiling range	data not available
Flash point	data not available
Evaporation rate	non-applicable
Flammability (solid, gas)	Extremely flammable aerosol.
Upper/lower flammability or explosive limits	
flammability limits	data not available
explosive limits	data not available
Vapour pressure	data not available
Vapour density	data not available
Relative density	data not available
Solubility(ies)	
solubility in water	not available
solubility in fats	not available
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available

	Viscosity	data not available
	Explosive properties	data not available
	Oxidising properties	data not available
9.2.	**Other information**	
	Density	data not available
	ignition temperature	data not available

SECTION 10: Stability and reactivity

10.1. Reactivity
not available

10.2. Chemical stability
The product is stable under normal conditions.

10.3. Possibility of hazardous reactions
Unknown.

10.4. Conditions to avoid
The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost. Pressurised container: May burst if heated.

10.5. Incompatible materials
Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products
Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

1-ethoxy-2-propanol

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	>5000 mg/kg		Rat	
Dermal	LD_{50}	>5000 mg/kg			
Inhalation	LC_{50}	>10000 mg/l	4 hour	Rat	

cyclohexane

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	12000 mg/kg		Rat (Rattus norvegicus)	
Dermal	LD_{50}	>18000 mg/kg		Rabbit	

dimethoxymethane

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	6423 mg/kg		Rat	
Dermal	LD_{50}	>5000 mg/kg		Rabbit	

ethanol

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Inhalation	LC_{50}	>50 mg/l	4 hour	Rat	
Oral	LD_{50}	7060 mg/kg		Rat	
Oral	LD_{50}	6000 mg/kg		Human	

isopropanol

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	5840 mg/kg		Rat (Rattus norvegicus)	
Dermal	LD_{50}	13900 mg/kg		Rabbit	
Inhalation	LC_{50}	25000 mg/m³		Rat (Rattus norvegicus)	

methanol

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	1187-2769 mg/kg		Rat	
Dermal	LD_{50}	17100 mg/kg		Rabbit	
Inhalation	LC_{50}	125.2 mg/l	4 hour	Rat	

n-hexane

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	28700 mg/kg		Rat (Rattus norvegicus)	
Dermal	LD_{50}	3295 mg/kg		Rabbit	

pentane

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	>2000 mg/kg		Rat	
Inhalation	LD_{50}	364 mg/m³	4 hour	Rat	

Corrosivity

1-ethoxy-2-propanol

Route of exposure	Result	Time of exposure	Species
	Irritating		

Skin corrosion/irritation
Based on available data the classification criteria are not met.

1-ethoxy-2-propanol

Route of exposure	Result	Time of exposure	Species
	Irritating		

Serious eye damage/irritation
Causes serious eye irritation.

Respiratory or skin sensitisation
Based on available data the classification criteria are not met.

Germ cell mutagenicity
Based on available data the classification criteria are not met.

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

Reproductive toxicity
Based on available data the classification criteria are not met.

Toxicity for specific target organ - single exposure
May cause drowsiness or dizziness.

Toxicity for specific target organ - repeated exposure
Based on available data the classification criteria are not met.

Aspiration hazard
Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. Based on available data the classification criteria are not met.

pentane

Route of exposure	Result	Time of exposure	Species	Sex
	Negative			

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity
Harmful to aquatic life with long lasting effects.

1-ethoxy-2-propanol

Parameter	Value	Time of exposure	Species	Environment
LC_{50}	>10000 mg/l	24 hour	Fishes (Pimephales promelas)	
LC_{50}	5465 mg/l	48 hour	Invertebrates (Daphnia magna)	
EC_{50}	3045 mg/l	96 hour	Algae	
EC_{50}	>10000 mg/l	16 hour	Bacteria	

dimethoxymethane

Parameter	Value	Time of exposure	Species	Environment
LC_{50}	>1000 mg/l	96 hour	Fishes	
LC_{50}	>1200 mg/l	48 hour	Aquatic invertebrates	
EC_{50}	10 g/l		Microorganisms (Pseudomonas putida)	

ethanol

Parameter	Value	Time of exposure	Species	Environment
LC_{50}	8140 mg/l	48 hour	Fishes (Leuciscus idus)	
UE_{50}	9268-14221 mg/l	48 hour	Invertebrates (Daphnia magna)	
IC_{50}	5000 mg/l	07 day	Algae	
UE5	6500 mg/l	16 hour	Bacteria (Pseudomonas putida)	

isopropanol

Parameter	Value	Time of exposure	Species	Environment
EC_{50}	1800 mg/l	7 day	Algae	

isopropanol

Parameter	Value	Time of exposure	Species	Environment
LOEC	10000 mg/l	48 hour	Daphnia magna	

methanol

Parameter	Value	Time of exposure	Species	Environment
LC_{50}	15400 mg/l	96 hour	Fishes	
EC_{50}	>10000 mg/l	48 hour	Aquatic invertebrates (Daphnia magna)	
EC_{50}	22000 mg/l	96 hour	Algae and other aquatic plants	

n-hexane

Parameter	Value	Time of exposure	Species	Environment
LC_{50}	3900 mg/ml	48 hour	Invertebrates (Daphnia magna)	
NOEL	30000 mg/ml	72 hour	Algae and other aquatic plants (Pseudokirchneriella subcapitata)	
LC_{50}	>1000 µg/l	48 hour	Fishes	

Chronic toxicity

1-ethoxy-2-propanol

Parameter	Value	Time of exposure	Species	Environment
NOEC	547 mg/l		Fishes	
EC_{50}	117 mg/l		Invertebrates (Daphnia magna)	

12.2. Persistence and degradability

Not available.

12.3. Bioaccumulative potential

1-ethoxy-2-propanol

Parameter	Value	Time of exposure	Species	Environment	Surrounding temperature [°C]
BCF	3.16				

dimethoxymethane

Parameter	Value	Time of exposure	Species	Environment	Surrounding temperature [°C]
Log Pow	0				

methanol

Parameter	Value	Time of exposure	Species	Environment	Surrounding temperature [°C]
Log Pow	-0.77				

Not available.

12.4. Mobility in soil

dimethoxymethane

Parameter	Value	Environment	Surrounding temperature
Log Koc	0.13-1		

methanol

Parameter	Value	Environment	Surrounding temperature
Log Koc	0.13-1		

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Other adverse effects

Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Legislation of waste

Council Directive 75/442/EEC on waste, as amended. Decree No. 383/2001 Coll., on details regarding waste handling as amended. Decree No. 93/2016 Coll., (waste catalogue) as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

16 05 04 gases in pressure containers (including halons) containing dangerous substances

Packaging waste type code

15 01 11 metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

---

SECTION 14: Transport information

14.1. UN number

UN 1950

14.2. UN proper shipping name

AEROSOLS

14.3. Transport hazard class(es)

2 Gases

14.4. Packing group

not available

14.5. Environmental hazards

not available

14.6. Special precautions for user

Reference in the Sections 4 to 8.

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

not available

Additional information

Hazard identification No.	(Kemler Code)
UN number	**1950**
Classification code	5F
Safety signs	2.1

Air transport - ICAO/IATA

Packaging instructions passenger	203
Cargo packaging instructions	203

Marine transport - IMDG

EmS (emergency plan)	F-D, S-U
MFAG	620

SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended. The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended (the Chemical Act). Decree No. 80/2014 Coll., amending the Decree No. 194/2001 Coll., laying down technical requirements for aerosol sprays as amended. Decree No. 432/2003 Coll., laying down conditions for assigning categories to individual jobs, limit values of indices from biological exposure tests, conditions for the sampling of biological materials for biological exposure and the particulars of the reports on work with asbestos and biological agents as amended.

Restrictions pursuant to Annex XVII of Regulation (EC) No. 1907/2006 (REACH), as amended

butane

Restriction	Conditions of restriction
28	Without prejudice to the other parts of this Annex the following shall apply to entries 28 to 30: 1. Shall not be placed on the market, or used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than: — either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or, — the relevant concentration specified in Directive 1999/45/EC where no specific concentration limit is set out in Part 3 of Annex VI to Regulation (EC) No 1272/2008. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly as follows: "Restricted to professional users". 2. By way of derogation, paragraph 1 shall not apply to: (a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC; (b) cosmetic products as defined by Directive 76/768/EEC; (c) the following fuels and oil products: — motor fuels which are covered by Directive 98/70/EC, — mineral oil products intended for use as fuel in mobile or fixed combustion plants, — fuels sold in closed systems (e.g. liquid gas bottles); (d) artists' paints covered by Directive 1999/45/EC. (e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix 11, column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until the said date.
29	Without prejudice to the other parts of this Annex the following shall apply to entries 28 to 30: 1. Shall not be placed on the market, or used, — as substances, — as constituents of other substances, or, — in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than: — either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or, — the relevant concentration specified in Directive 1999/45/EC where no specific concentration limit is set out in Part 3 of Annex VI to Regulation (EC) No 1272/2008. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly as follows: "Restricted to professional users". 2. By way of derogation, paragraph 1 shall not apply to: (a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC; (b) cosmetic products as defined by Directive 76/768/EEC; (c) the following fuels and oil products: — motor fuels which are covered by Directive 98/70/EC, — mineral oil products intended for use as fuel in mobile or fixed combustion plants, — fuels sold in closed systems (e.g. liquid gas bottles); (d) artists' paints covered by Directive 1999/45/EC. (e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix 11, column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until the said date.

cyclohexane

Restriction	Conditions of restriction
57	1. Shall not be placed on the market for the first time after 27 June 2010, for supply to the general public, as a constituent of neoprene-based contact adhesives in concentrations equal to or greater than 0,1 % by weight in package sizes greater than 350 g. 2. Neoprene-based contact adhesives containing cyclohexane and not conforming to paragraph 1 shall not be placed on the market for supply to the general public after 27 December 2010. 3. Without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that neoprene-based contact adhesives containing cyclohexane in concentrations equal to or greater than 0,1 % by weight that are placed on the market for supply to the general public after 27 December 2010 are visibly, legibly and indelibly marked as follows: "— This product is not to be used under conditions of poor ventilation. — This product is not to be used for carpet laying.".

15.2. Chemical safety assessment

not available

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H301	Toxic if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Guidelines for safe handling used in the safety data sheet

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 no expose to temperatures exceeding 50 °C/122 °F.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P271	Use only outdoors or in a well-ventilated area.

A list of additional standard phrases used in the safety data sheet

EUH 066	Repeated exposure may cause skin dryness or cracking.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road

BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC	Identification code for each substance listed in EINECS
EC_{50}	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC_{50}	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC_{50}	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD_{50}	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log Kow	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Acute Tox.	Acute toxicity
Aerosol	Flammable aerosol
Aquatic Acute	Hazardous to the aquatic environment
Aquatic Chronic	Hazardous to the aquatic environment
Asp. Tox.	Aspiration hazard
Eye Irrit.	Eye irritation
Flam. Gas	Flammable gas
Flam. Liq.	Flammable liquid
Repr.	Reproductive toxicity
Skin Irrit.	Skin irritation
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended. First aid principles after the exposure to the chemicals (Zásady pro poskytování první pomoci při expozici chemickým látkám, doc. MUDr. Daniela Pelclová, CSc., MUDr. Alexandr Fuchs, CSc., MUDr. Miroslava Hornychová, CSc., MUDr. Zdeňka Trávníčková, CSc., Jiřina Fridrichovská, prom. chem.). Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.