				ZLS TermoPascy	
		according to Commission Reg		as amended	
Current		-	do metali ZM		
	ion date	21st September 2022	Maraian		
Kevisi	on date	22nd February 2023	Version	5.0	
		on of the substance/mixture a		-	
1.1.	Product identifie	r	Zmywacz do me	etali ZM	
	Substance / mixtu	re	mixture		
	UFI		S220-30HS-900	X-QU7U	
1.2.		ed uses of the substance or m	ixture and uses advis	ed against	
	Mixture's intend	ed use			
	Cleaning agent.				
	Main intended us				
	PC-CLN-2		ti-purpose) non-abrasiv	re cleaners	
	Mixture uses adv	-			
	•	d not be used in ways other then		n 1.	
1.3.		pplier of the safety data sheet			
	Manufacturer				
	Name or trac	de name		Grzegorz Gąsowski	
	Address		Kolejowa 33 E, Sokoły, 18-218		
			Poland		
		າ number (CRN)	200133730		
	VAT Reg No		PL9661767714		
	Phone		862741342		
	E-mail		biuro@termopas		
	Web address		www.termopasty	y.pl	
		on responsible for the safety d			
	Name			Grzegorz Gąsowski	
	E-mail		biuro@termopas	sty.pl	
1.4.	Emergency telep				
	European emerger	ncy number: 112			

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the mixture in accordance with Regulation (EC) No 1272/2008 The mixture is classified as dangerous.

Aerosol 1, H229, H222 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Repr. 2, H361 STOT RE 2, H373 Aquatic Chronic 2, H411

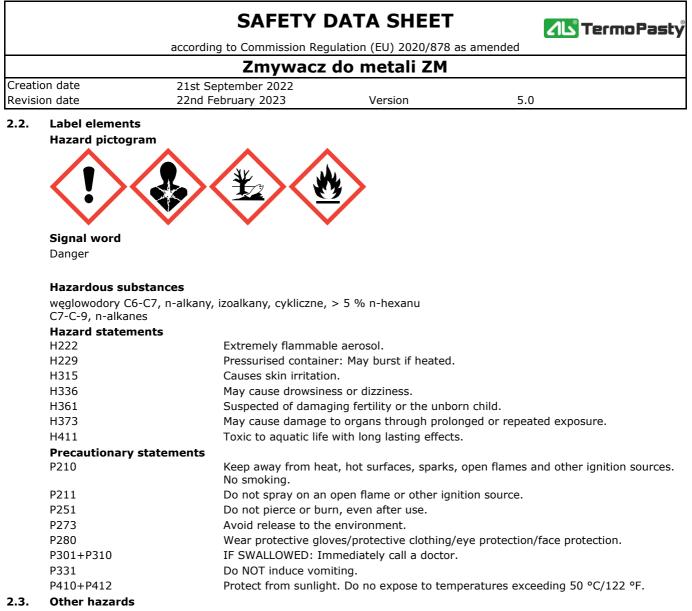
Full text of all classifications and hazard statements is given in the section 16.

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

May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Causes skin irritation. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.



The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not

1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients 3.2. Mixtures

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

contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No.

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 601-004-00-0 CAS: 106-97-8 EC: 203-448-7	butane	31,5-42	Flam. Gas 1, H220 Press. Gas (compressed gas), H280	1
EC: 924-168-8 Registration number: 01-2119475133-43- 0011	węglowodory C6-C7, n-alkany, izoalkany, cykliczne, > 5 % n-hexanu	20-25	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Repr. 2, H361 STOT RE 2, H373 Aquatic Chronic 2, H411	2



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Identification numbers	Substance name	Content in % weight	5	Note
EC: 920-750-0 C7-C-9, n-alkanes Registration number: 01-2119473851-33- XXXX		20-25	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411 EUH066	
Index: 601-003-00-5 CAS: 74-98-6 EC: 200-827-9	propane	10,5-21	Flam. Gas 1, H220 Press. Gas (compressed gas), H280	

Notes

1 A substance for which exposure limits are set.

2 Substance of unknown or variable composition, complex reaction products or biological materials - UVCB.

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

Do not perform artificial respiration without self-protection (e.g. a mask). If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled

Take care of your own safety, do not let the affected person walk! Terminate the exposure immediately; move the affected person to fresh air. Beware of the contaminated clothes. Depending on the situation, call the medical rescue service and ensure medical treatment considering the frequent need of further observation for at least 24 hours.

If on skin

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

If in eyes

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.

If swallowed

If the affected person vomits, make sure to prevent inhalation of the vomit (as there is a danger of lung damage after inhalation of these liquids in the airways also in infinitesimal amount). Ensure medical treatment considering the frequent need of further observation for at least 24 hours. Bring an original container with the label and the Safety Data Sheet of the given substance as appropriate.

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

If inhaled

Cough, headache. May cause drowsiness or dizziness.

If on skin

Causes skin irritation.

If in eyes

When intruding eyes, it can evoke irritation. **If swallowed** 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.



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5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. 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 Do not allow to enter drains. 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. Obtain special instructions before use. Do not pierce or burn, even after use. Wash hands and exposed parts of the body thoroughly after handling. Do not handle until all safety precautions have been read and understood. 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.

4	00 ml	airspray	FE
C	Content	Packaging type	Material of package

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.

United Kingdom	EH40/2005 Workpla	EH40/2005 Workplace exposure limits (Fourth Edition 2020)			
Substance name (component)		Туре	Value		
		WEL 8h	1450 mg/m ³		
		WEL 8h	600 ppm		
butane (CAS: 106-97-8)		WEL 15min	1810 mg/m ³		
		WEL 15min	750 ppm		

DNEL

C7-C-9, n-alkanes

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Dermal	773 mg/kg bw/day	Chronic effects systemic		



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C7-C-9, n-alkanes

Route of exposure	Value	Effect	Value determination	Source
Inhalation	2035 mg/m ³	Chronic effects systemic		
Dermal	699 mg/kg bw/day	Chronic effects systemic		
Inhalation	608 mg/m ³	Chronic effects systemic		
Oral	699 mg/kg bw/day	Chronic effects systemic		
	exposure Inhalation Dermal Inhalation	exposureValueInhalation2035 mg/m³Dermal699 mg/kg bw/dayInhalation608 mg/m³Oral699 mg/kg	exposure Value Effect Inhalation 2035 mg/m³ Chronic effects systemic Dermal 699 mg/kg bw/day Chronic effects systemic Inhalation 608 mg/m³ Chronic effects systemic Oral 699 mg/kg Chronic effects systemic	exposure Value Effect determination Inhalation 2035 mg/m ³ Chronic effects systemic determination Dermal 699 mg/kg bw/day Chronic effects systemic determination Inhalation 608 mg/m ³ Chronic effects systemic determination Oral 699 mg/kg Chronic effects systemic determination

Workers / Route of Value Value Effect Source consumers exposure determination Chronic effects systemic Workers Inhalation 145 mg/m³ Workers Dermal 21 mg/kgChronic effects systemic bw/day Consumers Inhalation 27 mg/m³ Chronic effects systemic Consumers Dermal 9 mg/kg Chronic effects systemic bw/day Consumers Oral 8 mg/kg Chronic effects systemic bw/day

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. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

Respiratory protection

Respirator.

Thermal hazard

Data not available.

Environmental exposure controls

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	gas
Colour	colourless
Odour	data not available
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	data not available
Flammability	Extremely flammable aerosol.
Lower and upper explosion limit	data not available
Flash point	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	gas
Kinematic viscosity	data not available
Solubility in water	data not available
Solubility in fats	data not available



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Zmywacz do metali ZM Creation date 21st September 2022 22nd February 2023 5.0 Revision date Version Partition coefficient n-octanol/water (log value) data not available Vapour pressure data not available Density and/or relative density Density 0,7 g/cm³ Relative vapour density data not available Particle characteristics data not available Form aerosol 9.2. **Other information** Evaporation rate non-applicable

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

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. No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

C7-C-9, n-alkanes

Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD 50	>5840 mg/kg		Rat	
Skin	LD 50	>2920 mg/kg		Rat	
Inhalation	LC50	>23.3 mg/l	4 hours	Rat	
Oral	ATE	>2000 mg/kg			
Skin	ATE	>2000 mg/kg			
Inhalation (dust/mist)	ATE	>20 mg/l	4 hours		

węglowodory C6-C7, n-alkany, izoalkany, cykliczne, > 5 % n-hexanu

Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD 50	>5840 mg/kg		Rat	
Inhalation	LC50	>25200 mg/m ³	4 hours	Rat	
Dermal	LD50	>2920 mg/l		Rat	

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Based on available data the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.



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	Germ cell mut	agenicity		
	Based on availa	ble data the classification criteria are	e not met.	
	Carcinogenici	ty		
	Based on availa	ble data the classification criteria are	e not met.	
	Reproductive	toxicity		
	Suspected of d	amaging fertility or the unborn child.		
	Toxicity for s	pecific target organ - single expos	sure	
	May cause drow	vsiness or dizziness.		
	Toxicity for s	oecific target organ - repeated ex	posure	
	May cause dam	age to organs through prolonged or	repeated exposure.	
	Aspiration ha	zard		
	May be fatal if	swallowed and enters airways.		
11.2.	Information o	on other hazards		
		es not contain substances with endo Delegated Regulation (EU) 2017/210		ties in accordance with the criteria set out lation (EU) 2018/605.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Toxic to aquatic life with long lasting effects.

C7-C-9, n-alkanes

Parameter	Value	Exposure time	Species	Environment		
LC50	3 mg/l	96 hours	Fish (Oncorhynchus mykiss)			
EC₅o	4.5 mg/l	48 hours	Aquatic invertebrates (Daphnia magna)			
EL50	10 mg/l	72 hours	Algae (Pseudokirchneriella subcapitata)			
węglowodory C6-C7, n-alkany, izoalkany, cykliczne, > 5 % n-hexanu						
Parameter	Value	Exposure time	Species	Environment		

Parameter	Value	Exposure time	Species	Environment
EL 50	3-22 mg/l	48 hours	Invertebrates (Daphnia magna)	
NOEC	0.17 mg/l	21 days	Invertebrates (Daphnia magna)	
EL 50	35.29 mg/l	48 hours	Algae (Tetrahymena pyriformis)	
LL 50	11.4 mg/l	96 hours	Fish (Oncorhynchus mykiss)	Fresh water
NOEL	2.028 mg/l	28 days	Fish (Oncorhynchus mykiss)	

Chronic toxicity C7-C-9, n-alkanes

	Parameter	Value	Exposure time	Species	Environment
	NOEL	0.574 mg/l	28 days	Fish (Oncorhynchus mykiss)	
	NOEC	0.17 mg/l	21 hours	Aquatic invertebrates (Daphnia magna)	

12.2. Persistence and degradability



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Biodegradability

C7-C-9, n-alkanes

Parameter	Value	Exposure time	Environment	Result
	>74 %	28 days		Biodegradable

not available

12.3. Bioaccumulative potential

Data not available.

12.4. Mobility in soil

Data 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. Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Data 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.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, 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 hazardous substances *

Packaging waste type code

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

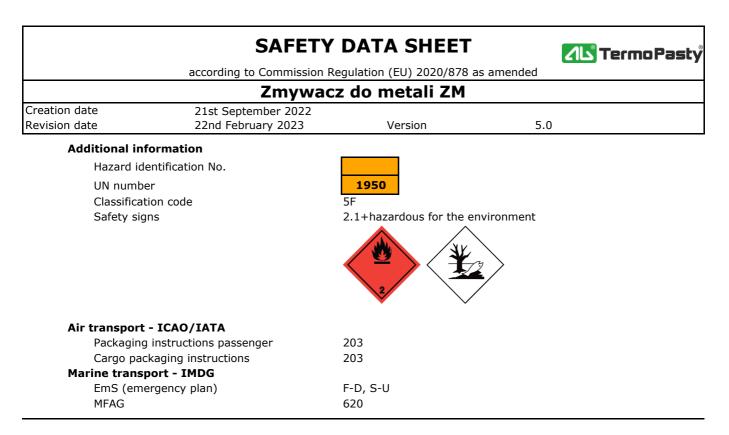
(*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

SECTION 14: Transport information

- 14.1. UN number or ID number UN 1950
- **14.2.** UN proper shipping name AEROSOLS
- 14.3. Transport hazard class(es) 2 Gases
- 14.4. Packing group not relevant

14.5. Environmental hazards not relevant

- **14.6.** Special precautions for user Reference in the Sections 4 to 8.
- **14.7.** Maritime transport in bulk according to IMO instruments not relevant



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 (EC) 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 as amended.

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out (mixture).

SECTION 16: Other information

A list of standard risk phrase	es used in the safety data sheet
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic 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.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a doctor.
P331	Do NOT induce vomiting.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.
A list of additional standard	phrases used in the safety data sheet
EUH066	Repeated exposure may cause skin dryness or cracking.



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Other import	ant information about human heal	th protection			
			r/importer - used for purposes other than		
	tion 1. The user is responsible for adhe		alth protection regulations.		
-	viations and acronyms used in the				
ADR	road	-	ational carriage of dangerous goods by		
BCF	Bioconcentration Fac				
CAS	Chemical Abstracts S				
CLP	substance and mixtu	res	tion, labelling and packaging of		
EC		or each substance listed			
EC₅0			ected 50% of the population		
EINECS		of Existing Commercial			
ELso	5	50% of the tested orga	anisms		
EmS	Emergency plan				
EU	European Union				
EuPCS	European Product Ca	tegorisation System			
IATA	International Air Tra	nsport Association			
IBC	International Code Fo Dangerous Chemicals		d Equipment of Ships Carrying		
ICAO	International Civil Av	iation Organization			
IMDG	International Maritim	e Dangerous Goods			
IMO	International Maritim	e Organization			
INCI		clature of Cosmetic Ing	iredients		
ISO		zation for Standardizatio			
IUPAC		of Pure and Applied Che			
LC50		••	n it can be expected death of 50% of the		
LD50	• •	stance in which it can be	e expected death of 50% of the		
LL50)% of tested organisms			
log Kow	Octanol-water partiti				
NOEC	No observed effect of				
NOEL	No observed effect le				
OEL	Occupational Exposu				
PBT	Persistent, Bioaccum				
	Parts per million				
ppm	•	ion Authorization and I	Destriction of Chamicala		
REACH	_		Restriction of Chemicals		
RID	-	ansport of dangerous go			
UN	Model Regulations		stance or article taken from the UN		
UVCB	biological materials		ition, complex reaction products or		
VOC	Volatile organic comp				
vPvB	Very Persistent and v	very Bioaccumulative			
Aerosol	Aerosol				
Aquatic Chroni	c Hazardous to the aqu	uatic environment (chro	onic)		
Asp. Tox.	Aspiration hazard				
Flam. Gas	Flammable gas				
Flam. Liq.	Flammable liquid				
Press. Gas	Gases under pressur	e			
Repr.	Reproductive toxicity				
Skin Irrit.	Skin irritation				
		tovicity reported over			
STOT RE	SDECITIC LATUEL OF UAT	toxicity - repeated exp	osure		



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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. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

The version 5.0 replaces the SDS version from 21 September 2022. Changes were made in sections 1, 2, 13, 15 and 16.

More information

Classification procedure - calculation method.

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.