



Safety Data Sheet dated 20/4/2023, version 2

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

1.1. Product identifier

Mixture identification:

Trade name: 9.ADVANCED - 9.ADVANCED250 - 9.ADVANCED5L

Trade code: 9.ADVANCED

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

Recommended use:

Abrasive compound for bodywork

Professional use only Uses advised against:

All not indicated in the suggested uses.

1.3. Details of the supplier of the safety data sheet

Company:

RUPES SPA - Via Marconi 3A - Loc. Vermezzo 20071 Vermezzo con Zelo (MI) - Italy

RUPES SPA - Telefono nº+3902946941

Competent person responsible for the safety data sheet:

info rupes@rupes.it

1.4. Emergency telephone number

For United States, Canada Puerto Rico and Virgin Island: 1-800-255-3924

For China: 400-120-0751 For Brazil: 0-800-591-6042 For India: 000-800-100-4086 For Mexico: 01-800-099-0731

For Europe and all the other countries: 001-813-248-0585

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

Warning, STOT RE 2, May cause damage to organs (central nervous system) through prolonged or repeated exposure.

Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning



Hazard statements:

H373 May cause damage to organs (central nervous system) through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P260 Do not breathe vapours.

P273 Avoid release to the environment.

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Contains

stoddard solvent; Low boiling point naphtha - unspecified; [A colourless, refined petroleum distillate that is free from rancid or objectionable odours and that boils in a range of approximately 148,8 oC to 204,4 o C (3000F to 4000F).]

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1): May produce an allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments: Restricted to professional users.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb	er	Classification
>= 10% - < 25%	Hydrocarbons C12-C16, isoalkanes, <2% Aromatics	EC:	927-676-8	3.10/1 Asp. Tox. 1 H304 EUH066
>= 5% - < 10%	aliphatic hydrocarbons, C11-C13, isoalkanes (<0.1% Benzene)	CAS: EC: REACH No.:	246538-78-3 920-901-0 01-21194568 10-40	3.10/1 Asp. Tox. 1 H304 EUH066
>= 2% - < 5%	hydrocarbons, C10-C12, isoalkanes, <2% aromatic	EC:	923-037-2	2.6/3 Flam. Liq. 3 H226 3.10/1 Asp. Tox. 1 H304 4.1/C2 Aquatic Chronic 2 H411 EUH066
>= 2% - < 5%	Dimetilsilossano	CAS:	71750-80-6	3.2/2 Skin Irrit. 2 H315



	T	T		
				3.3/2 Eye Irrit. 2 H319
>= 2% - < 5%	stoddard solvent; Low boiling point naphtha - unspecified; [A	Index number: CAS:	649-345-00-4 8052-41-3	2.6/3 Flam. Liq. 3 H2263.10/1 Asp. Tox. 1 H304
	colourless, refined petroleum distillate that is free from rancid or objectionable odours and that boils in a range of approximately 148,8 oC to 204,4 o C	EC:	232-489-3	 ❖ 3.9/1 STOT RE 1 H372 ❖ 4.1/C2 Aquatic Chronic 2 H411
	(300oF to 400oF).]			
>= 0.1% - < 1%	methanol	Index number:	603-001-00-X	2.6/2 Flam. Liq. 2 H225
170		CAS:	67-56-1	3.8/1 STOT SE 1 H370
		EC:	200-659-6	3.1/3/Oral Acute Tox. 3 H301
				3.1/3/Dermal Acute Tox. 3 H311 3.1/3/Inhal Acute Tox. 3 H331
				Specific Concentration Limits: C >= 10%: STOT SE 1 H370 3% <= C < 10%: STOT SE 2 H371
80 ppm	ethylbenzene	Index	601-023-00-4	2.6/2 Flam. Liq. 2 H225
		number: CAS:	100-41-4	4.1/C3 Aquatic Chronic 3 H412
		EC:	202-849-4	3.1/4/Inhal Acute Tox. 4 H332
				3.9/2 STOT RE 2 H373
				3.10/1 Asp. Tox. 1 H304
80 ppm	naphthalene	Index	601-052-00-2	❖ 3.6/2 Carc. 2 H351
		number: CAS:	91-20-3	4.1/A1 Aquatic Acute 1 H400
		EC:	202-049-5	4.1/C1 Aquatic Chronic 1
				H410
44		1. 1.	040 407 00 5	3.1/4/Oral Acute Tox. 4 H302
14 ppm	reaction mass of 5-chloro-2-methyl-2H-i	Index number:	613-167-00-5	3.2/1C Skin Corr. 1C H314
	sothiazol-3-one and	CAS:	55965-84-9	3.3/1 Eye Dam. 1 H318
	2-methyl-2H-isothiazol- 3-one (3:1)			3.4.2/1A Skin Sens. 1A H317
	J-0116 (J. 1)			4.1/A1 Aquatic Acute 1 H400
				4.1/C1 Aquatic Chronic 1
				H410
				3.1/3/Oral Acute Tox. 3 H301
1				3.1/2/Dermal Acute Tox. 2



H310 3.1/2/Inhal Acute Tox. 2 H330 Specific Concentration Limits:
C >= 0,6%: Skin Corr. 1B H314 0,06% <= C < 0.6%: Skin Irrit. 2 H315
0,06% <= C < 0.6%: Eye Irrit. 2 H319 C >= 0,0015%: Skin Sens. 1 H317

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash with plenty of water and soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediatley and dispose off safely.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

Dry skin

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

in case of contact with eyes, rinse immediately with plenty of water and seek medical advice In case of skin contact: wash with plenty of water

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters



Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Keep container closed when not in use. Keep only in the original container in a cool, well ventilated place away from: direct sunlight, heat and ignition sources

Store in a well-ventilated place

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Abrasive compound for bodywork

Professional use only

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hydrocarbons C12-C16, isoalkanes, <2% Aromatics



- OEL Type: EU - TWA(8h): 200 mg/m3

hydrocarbons, C10-C12, isoalkanes, <2% aromatic

- OEL Type: TLV-ACGIH - TWA(8h): 1200 mg/m3, 0 ppm - STEL(15min): 0 mg/m3, 0 ppm

stoddard solvent; Low boiling point naphtha - unspecified; [A colourless, refined petroleum distillate that is free from rancid or objectionable odours and that boils in a range of approximately 148,8 oC to 204,4 o C (300oF to 400oF).] - CAS: 8052-41-3

- OEL Type: ACGIH - TWA(8h): 100 ppm - Notes: Eye, skin, and kidney dam, nausea, CNS impair

methanol - CAS: 67-56-1

- OEL Type: EU - TWA(8h): 260 mg/m3, 200 ppm - Notes: Skin

- OEL Type: ACGIH - TWA(8h): 200 ppm - STEL: 250 ppm - Notes: Skin, BEI -

Headache, eye dam, dizziness, nausea

ethylbenzene - CAS: 100-41-4

- OEL Type: EU - TWA(8h): 442 mg/m3, 100 ppm - STEL: 884 mg/m3, 200 ppm - Notes: Skin

- OEL Type: ACGIH - TWA(8h): 20 ppm - Notes: OTO; A3, BEI - URT & eye irr; ototoxicity; kidney eff; CNS impair

naphthalene - CAS: 91-20-3

- OEL Type: EU - TWA(8h): 50 mg/m3, 10 ppm

- OEL Type: ACGIH - TWA(8h): 10 ppm - Notes: Skin, A3 - URT irr, cataracts, hemolytic anemia

DNEL Exposure Limit Values

N.À.

PNEC Exposure Limit Values

N.A.

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.

Protection for skin:

Wear suitable protective clothing

Overall.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

In case of inadequate ventilation wear respiratory protection

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Physical state:	Liquid		
Colour:	Light pink		



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Odour:	characteristic	
Melting point/freezing point:	N.A.	
Boiling point or initial boiling point and boiling range:	N.A.	
Flammability:	N.A.	
Lower and upper explosion limit:	N.A.	
Flash point:	>63 ° C	
Auto-ignition temperature:	N.A.	
Decomposition temperature:	N.A.	
pH:	7 - 8	
Kinematic viscosity:	1500	
Solubility in water:	partially miscible	
Solubility in oil:	N.A.	
Partition coefficient n-octanol/water (log value):	N.A.	
Vapour pressure:	N.A.	
Density and/or relative density:	N.A.	
Relative vapour density:	N.A.	

Particle characteristics:

Particle size:	N.A.		
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9.2. Other information

Properties	Value	Method:	Notes
Viscosity:	1500 mm2/sec		Brookfield (Spindle speed=100)

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known

10.2. Chemical stability

stable under normal conditions

10.3. Possibility of hazardous reactions No dangerous reactions known

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures

10.5. Incompatible materials strong oxidizing agents

10.6. Hazardous decomposition products

carbon monoxide (CO) and carbon dioxide (CO2)

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 Toxicological information of the product:

N.A.

Toxicological information of the main substances found in the product:

Hydrocarbons C12-C16, isoalkanes, <2% Aromatics

a) acute toxicity:



Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg - Source: ECHA database - Notes: OECD401

Test: LC50 - Route: Inhalation Vapour - Species: Rat > 5000 mg/m3 - Duration: 4h -

Source: ECHA database - Notes: OECD403

Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg - Source: ECHA database -

Notes: OECD402

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Notes: OECD404 c) serious eye damage/irritation:

Test: Eye Irritant - Route: ocular - Species: Rabbit Negative - Notes: OECD405 d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin - Species: Guinea pig Negative - Notes: OECD406 aliphatic hydrocarbons, C11-C13, isoalkanes (<0.1% Benzene) - CAS: 246538-78-3 a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg - Source: ECHA database - Notes: OECD 401

Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg - Notes: OECD 402

Test: LC50 - Route: Inhalation Vapour - Species: Rat > 5000 mg/kg - Duration: 4h -

Notes: OECD 403

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Notes: OECD 404 c) serious eye damage/irritation:

Test: Eye Irritant - Route: ocular - Species: Rabbit Negative - Notes: OECD 405 d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin - Species: Guinea pig Negative - Notes: OECD 406 hydrocarbons, C10-C12, isoalkanes, <2% aromatic

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg - Source: ECHA database - Notes: OECD 401

Test: LC50 - Route: Inhalation Vapour - Species: Rat > 5000 mg/m3 - Duration: 4h - Notes: OECD 403

Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg - Notes: OECD 402 b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Notes: OECD 404 c) serious eve damage/irritation:

Test: Eye Irritant - Route: ocular - Species: Rabbit Negative - Notes: OECD 405 d) respiratory or skin sensitisation:

Test: Skin Sensitization - Route: Skin - Species: Guinea pig Negative - Notes: OECD 406 reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) - CAS: 55965-84-9

a) acute toxicity:

Test: ATE - Route: Oral = 100 mg/kg Test: ATE - Route: Skin = 300 mg/kg

Test: ATE - Route: Inhalation Vapour = 3 mg/l Test: ATE - Route: Inhalation Mist = 0.5 mg/l

If not differently specified, the information required in Regulation (EU)2020/878 listed below must be considered as N.A.:



- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity:
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.
- 11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment. Hydrocarbons C12-C16, isoalkanes, <2% Aromatics

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96 - Notes: LL50 - OECD 203 Oncorhynchus mykiss

Endpoint: LC50 - Species: Daphnia > 1000 mg/l - Duration h: 48 - Notes: LL50 - OECD 202 Daphnia Magna

Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 72 - Notes: EL50 - OECD 201 Pseudokirchnerella subcapitata

b) Aquatic chronic toxicity:

Endpoint: NOEL - Species: Daphnia = 1 mg/l - Notes: NOELR - 21d - OECD 211- Dafinia Magna

Endpoint: NOEL - Species: Fish > 1000 mg/l - Notes: NOELR - 28d - Oncorhynchus mykiss

c) Bacteria toxicity:

Endpoint: ÉC50 - Species: microorganisms > 1000 mg/l - Duration h: 5 - Notes: EL50 - Tetrahymena pyriformis

aliphatic hydrocarbons, C11-C13, isoalkanes (<0.1% Benzene) - CAS: 246538-78-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96 - Notes: LL50 - OECD 203 - Oncorhynchus mykiss

Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 72 - Notes: LL50 - OECD 201 - Pseudokirchneriella subcapitata

Endpoint: LC50 - Species: Daphnia > 1000 mg/l - Duration h: 48 - Notes: LL50 - OECD 202 - Daphnia magna

b) Aquatic chronic toxicity:

Endpoint: NOEL - Species: Fish = 0.316 mg/l - Notes: NOELR - 28d - Oncorhynchus mykiss

Endpoint: NOEL - Species: Daphnia = 1 mg/l - Notes: NOELR - 21d - OECD 211 - Daphnia magna

c) Bacteria toxicity:



Endpoint: EC50 - Species: microorganisms > 1000 mg/l - Duration h: 5 - Notes: EL50 - Tetrahymena pyriformis

hydrocarbons, C10-C12, isoalkanes, <2% aromatic

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96 - Notes: LL50 - OECD 203 - Oncorhynchus mykiss

Endpoint: LC50 - Species: Daphnia > 1000 mg/l - Duration h: 48 - Notes: LL50 - OECD 202 - Daphia magna

Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 72 - Notes: LL50 - OECD 201 - Pseudokirchneriella subcapitata

b) Aquatic chronic toxicity:

Endpoint: NOEL - Species: Fish = 0.192 mg/l - Notes: NOELR - 28 d - Oncorhynchus mykiss

Endpoint: NOEL - Species: Daphnia = 1 mg/l - Notes: NOELR - 21 d - OECD 211 - Daphnia magna

c) Bacteria toxicity:

Endpoint: EC50 - Species: microorganisms > 2 ml/l - Duration h: 5 - Notes: EL50 - Pseudomonas putida

12.2. Persistence and degradability

Hydrocarbons C12-C16, isoalkanes, <2% Aromatics

Biodegradability: Biodegradability: Not readily biodegradable - Test: Oxygen consumption - Duration h: 28d - %: 22.4 - Notes: (%) - ECHA - OECD 301F

aliphatic hydrocarbons, C11-C13, isoalkanes (<0.1% Benzene) - CAS: 246538-78-3

Biodegradability: Readily biodegradable - Test: Oxygen consumption - Duration h: 28d - %: 89.8 - Notes: (%) - ECHA - OECD 301F

hydrocarbons, C10-C12, isoalkanes, <2% aromatic

Biodegradability: Biodegradability: Not readily biodegradable - Test: Oxygen consumption - Duration h: 28d - %: 41.7 - Notes: (%) - ECHA - OECD 301 F

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

Substance vPvB

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 0.1%

12.7. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Additional disposal information:

Dispose in a safe manner in accordance with local/national regulations

SECTION 14: Transport information

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14.1. UN number or ID number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

N.A.

14.6. Special precautions for user

N.A.

14.7. Maritime transport in bulk according to IMO instruments

N.A

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 2020/878

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

Restriction 28

Restriction 29



Restriction 69 Restriction 75

Where applicable, refer to the following regulatory provisions:

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H304 May be fatal if swallowed and enters airways.

EUH066 Repeated exposure may cause skin dryness or cracking.

H226 Flammable liquid and vapour.

H411 Toxic to aquatic life with long lasting effects.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

H225 Highly flammable liquid and vapour.

H370 Causes damage to organs.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

H371 May cause damage to organs.

H412 Harmful to aquatic life with long lasting effects.

H332 Harmful if inhaled.

H373 May cause damage to organs (hearing organs) through prolonged or repeated exposure.

H351 Suspected of causing cancer.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H310 Fatal in contact with skin.

H330 Fatal if inhaled.

Hazard class and Code		Description	
hazard category			
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2	
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3	
Acute Tox. 2	3.1/2/Dermal	Acute toxicity (dermal), Category 2	
Acute Tox. 2	3.1/2/Inhal	Acute toxicity (inhalation), Category 2	



Acute Tox. 3	3.1/3/Dermal	Acute toxicity (dermal), Category 3
Acute Tox. 3	3.1/3/Inhal	Acute toxicity (inhalation), Category 3
Acute Tox. 3	3.1/3/Oral	Acute toxicity (oral), Category 3
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Corr. 1C	3.2/1C	Skin corrosion, Category 1C
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Skin Sens. 1A	3.4.2/1A	Skin Sensitisation, Category 1A
Carc. 2	3.6/2	Carcinogenicity, Category 2
STOT SE 1	3.8/1	Specific target organ toxicity - single exposure,
0101021	0.0/1	Category 1
STOT SE 2	3.8/2	Specific target organ toxicity - single exposure,
		Category 2
STOT RE 1	3.9/1	Specific target organ toxicity - repeated
		exposure, Category 1
STOT RE 2	3.9/2	Specific target organ toxicity - repeated
		exposure, Category 2
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

This safety data sheet has been completely updated in compliance to Regulation 2020/878. Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
STOT RE 2, H373	Calculation method
Aquatic Chronic 3, H412	Calculation method

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.



ADR: European Agreement concerning the International Carriage of

Dangerous Goods by Road.

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of

Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport

Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization"

(ICAO).

IMDG: International Maritime Code for Dangerous Goods. INCI: International Nomenclature of Cosmetic Ingredients.

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods

by Rail.

STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWA: Time-weighted average
WGK: German Water Hazard Class.