Tintometer[®] Group Water Testing



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Safety data sheet according to 1907/2006/EC, Article 31

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

- · 1.1 Product identifier
- · Product name: Vario FE in MO RGT 1
- · Catalog number: 00530319, 530310, 4530310, 00530311, 530312, 00530339
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Application of the substance / the preparation: Reagent for water analysis
- · 1.3 Details of the supplier of the safety data sheet
- · Supplier:

Tintometer GmbH Schleefstraße 8-12 44287 Dortmund Made in Germany www.lovibond.com

The Tintometer Limited Lovibond® House Sun Rise Way Amesbury Wiltshire SP4 7GR United Kingdom

Informing department: e-mail: sds@lovibond.com Product Safety Department

· 1.4 Emergency telephone number:

+44 1235 239670 Languages: English

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms



GHS05

- · Signal word Danger
- · Hazard-determining components of labelling:

disodium disulphite

Hazard statements

H318 Causes serious eye damage.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection.

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing.

P310 Immediately call a doctor.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P302+P352 IF ON SKIN: Wash with plenty of water.

· Additional information:

EUH031 Contact with acids liberates toxic gas.

EUH208 Contains methenamine. May produce an allergic reaction.

• 2.3 Other hazards No further relevant information available.

· Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

Determination of endocrine-disrupting properties

The product does not contain substances with endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · Description: Mixture of organic and inorganic compounds

· Dangerous components:		
CAS: 7681-57-4 EINECS: 231-673-0 Index No: 016-063-00-2 Reg.nr.: 01-2119531326-45-XXXX	disodium disulphite Sye Dam. 1, H318; Acute Tox. 4, H302, EUH031	10–20%
CAS: 7775-14-6 EINECS: 231-890-0 Index No: 016-028-00-1	sodium dithionite Self-heat. 1, H251; Acute Tox. 4, H302, EUH031 ATE: LD50 oral: 500 mg/kg	10–20%
CAS: 497-19-8 EINECS: 207-838-8 Index No: 011-005-00-2 Reg.nr.: 01-2119485498-19-XXXX	sodium carbonate © Eye Irrit. 2, H319	≤2.5%
CAS: 100-97-0 EINECS: 202-905-8 Index No: 612-101-00-2 Reg.nr.: 01-2119474895-20-XXXX	methenamine ♠ Flam. Sol. 2, H228; ♦ Skin Sens. 1, H317	0.1–<1%

[·] Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information Instantly remove any clothing soiled by the product.
- · After inhalation Supply fresh air; consult doctor in case of symptoms.
- · After skin contact

Instantly rinse with water.

If skin irritation or rash occurs: Get medical advice/attention.

· After eye contact

Rinse opened eye for several minutes (at least 15 min) under running water.

Call a doctor immediately.

· After swallowing

Rinse out mouth and then drink 1-2 glasses of water.

In case of persistent symptoms consult doctor.

· Information for doctor Sulphites are strong sensitizers.

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

Irritation and corrosion

allergic reactions

absorption

after inhalation:

mucosal irritations, cough, shortness of breath

after swallowing:

gastric or intestinal trouble

sickness

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vomiting diarrhoea pain

4.3 Indication of any immediate medical attention and special treatment needed: No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents CO2, sand, extinguishing powder.
- · For safety reasons unsuitable extinguishing agents

Water

Foam

If possible use dry extinguishing agents.

5.2 Special hazards arising from the substance or mixture

The product is not combustible.

mixture with combustible ingredients

Formation of toxic gases is possible during heating or in case of fire.

Can be released in case of fire:

Sulphur oxides (SOx)

Sodium oxide

Carbon monoxide (CO) and carbon dioxide (CO₂)

- 5.3 Advice for firefighters
- Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

· Additional information

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Ambient fire may liberate hazardous vapours.

SECTION 6: Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures
- · Advice for non-emergency personnel:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Avoid causing dust.

Advice for emergency responders:

Put on breathing apparatus.

Protective equipment: see section 8

- 6.2 Environmental precautions: Do not allow product to reach sewage system or water bodies.
- · 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Collect mechanically.

Dispose of contaminated material as waste according to item 13.

6.4 Reference to other sections

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
- · Advice on safe handling:

Prevent formation of dust.

Thorough dedusting.

· Hygiene measures:

Avoid contact with the eyes.

Avoid contact with the skin.

Take off immediately all contaminated clothing.

Wash hands during breaks and at the end of the work.

Do not eat, drink or smoke when using this product.

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- · 7.2 Conditions for safe storage, including any incompatibilities
- · Requirements to be met by storerooms and containers: Store in cool location.
- Information about storage in one common storage facility:

Store away from oxidising agents.

Do not store together with acids.

Further information about storage conditions:

Store in cool, dry conditions in well sealed containers.

Protect from heat and direct sunlight.

Protect from the effects of light.

Protect from humidity and keep away from water.

- · Recommended storage temperature: 20°C +/- 5°C
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

CAS: 7681-57-4 disodium disulphite

WEL (Great Britain) Long-term value: 5 mg/m³

- · Regulatory information WEL (Great Britain): EH40/2020
- · DNELs

Derived No Effect Level (DNEL)

,			
CAS: 7681-57-4 disodium disulphite			
Inhalative	10 mg/m³ (Worker / long-term /systemic effects) (MERCK)		
CAS: 7775-14-6 sodium dithionite			
Dermal	DNEL	8.8 mg/kg (Worker / long-term /systemic effects)	
Inhalative	DNEL	10 mg/m³ (Worker / long-term /systemic effects)	
CAS: 497-19-8 sodium carbonate			
Inhalative	DNEL	10 mg/m³ (Worker / long-term / local effects)	
CAS: 100-97-0 methenamine			
Dermal	DNEL	8.8 mg/kg (Worker / long-term /systemic effects)	
Inhalative	DNEL	31 mg/m³ (Worker / long-term /systemic effects)	
	CAS: 7779 Dermal Inhalative CAS: 4979 Inhalative CAS: 1000 Dermal	Inhalative DNEL CAS: 7775-14-6 s Dermal DNEL Inhalative DNEL CAS: 497-19-8 ss Inhalative DNEL CAS: 100-97-0 m Dermal DNEL	

Recommended monitoring procedures:

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

· PNECs

Predicted No Effect Concentration (PNEC)

CAS: 7681-57-4 disodium disulphite			
·			
IEC 75.4 mg/l (Sewage treatment plant)			
0.1 mg/l (Marine water)			
1 mg/l (Fresh water)			
CAS: 7775-14-6 sodium dithionite			
45.3 mg/l (Sewage treatment plant)			
0.1 mg/l (Marine water)			
1 mg/l (Fresh water)			
CAS: 100-97-0 methenamine			
100 mg/l (Sewage treatment plant)			
0.5 mg/l (Marine water)			
2.4 mg/l (Fresh water sediment)			
3 mg/l (Fresh water)			

· Additional information: The lists that were valid during the compilation were used as basis.

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· 8.2 Exposure controls

· Engineering measures:

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See item 7.

· Individual protection measures, such as personal protective equipment

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.

· Eye/face protection

Tightly sealed safety glasses.

Use safety glasses that have been tested and approved in accordance with government standards such as EN 166.

Hand protection

Protective gloves.

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

· Material of gloves

nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

· Penetration time of glove material

Value for the permeation: Level = 1 (< 10 min)

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- · Other skin protection (body protection): Protective work clothing.
- · Breathing equipment: Use breathing protection against the effects of fumes/dust/aerosol.
- · Recommended filter device for short term use: Combination filter ABEK-P2
- · Environmental exposure controls Do not allow product to reach sewage system or water bodies.

SECTION 9: Physical and chemical properties

 \cdot 9.1 Information on basic physical and chemical properties

Physical state
Form:
Colour:
Odour:
Odour threshold:
Malting point/Frequing point:

Melting point/Freezing point:
 Boiling point or initial boiling point and boiling range Not determined.

Flammability mixture with combustible ingredients

• Explosive properties: Product is not explosive.

Lower and upper explosion limit

Lower:
Upper:
Not applicable.
Not applicable.
Not applicable.
Not applicable.
Not applicable.
Not applicable (solid).
Decomposition temperature:
> 80°C (CAS 7775-14-6)

· pH (33 g/l) at 20°C

· Kinematic viscosity Not applicable (solid).

· Solubility

· Water: Soluble

· Partition coefficient n-octanol/water (log value) Not applicable (mixture).

· Vapour pressure:

Not applicable.

· Density and/or relative density

Density: Not determined.
 Relative density: Not determined.
 Relative gas density Not applicable (solid).
 Particle characteristics Not determined.

· 9.2 Other information

· Information with regard to physical hazard classes

· Corrosive to metals Void

· Other safety characteristics

· Oxidising properties: none

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· Additional information

· Solids content: 100 %

SECTION 10: Stability and reactivity

- · 10.1 Reactivity see section 10.3
- · 10.2 Chemical stability Stable at ambient temperature (room temperature).
- · 10.3 Possibility of hazardous reactions

Reacts with acids releasing sulphur dioxide

Reacts with acids and oxidising agents.

 10.4 Conditions to avoid strong heating

Exposure to moisture.

- · 10.5 Incompatible materials: sodium chlorite
- · 10.6 Hazardous decomposition products:

Sulphur dioxide

In case of fire: see section 5.

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values that are relevant for classification:			
CAS: 768	CAS: 7681-57-4 disodium disulphite		
Oral	LD50	1540 mg/kg (rat) (OECD 401) (MERCK)	
Dermal		>2000 mg/kg (rat) (RTECS)	
Inhalative	LC50	>5.5 mg/l /4h (rat) (OECD 403) Registrant, ECHA: the value is given in analogy to sodium sulphite	
CAS: 777	5-14-6 s	sodium dithionite	
Oral	LD50	500 mg/kg (ATE)	
	LD50.	2500 mg/kg (rat) (IUCLID)	
CAS: 497-	-19-8 sc	odium carbonate	
Oral	LD50	2800 mg/kg (rat) (Registrant, ECHA)	
	LDLo	714 mg/kg (human) (RTECS)	
Dermal	LD50.	>2000 mg/kg (rabbit) (US-EPA) (Registrant, ECHA: No deaths occured at this concentration)	
Inhalative	LC50	5750 mg/l/2h (rat) (OECD 403)	
CAS: 100-	CAS: 100-97-0 methenamine		
Oral	LD50	9200 mg/kg (rat) (IUCLID)	
Dermal	LD50.	>2000 mg/kg (rat) (OECD 402)	

- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation

Causes serious eve damage.

Risk of corneal clouding.

TAISK OF COLLIC	ar clouding.
· Information	on components:

CAS: 7681-57-4 disodium disulphite			
		(rabbit: no irritation)	
Irritation of eyes	OECD 405	(rabbit: severe irritations	

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CAS: 7775-14-6 sodium dithionite

Irritation of skin OECD 404 (rabbit: no irritation)

CAS: 497-19-8 sodium carbonate

Irritation of skin OECD 404 (rabbit: slight irritation)

Irritation of eyes OECD 405 (rabbit: irritation) (US-EPA)

CAS: 100-97-0 methenamine

Irritation of skin OECD 404 (rabbit: no irritation)

Irritation of eyes OECD 405 (rabbit: no irritation)

Irritation of eyes OECD 405 (rabbit: no irritation)

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Information on components:

Contains methenamine. May produce an allergic reaction.

CAS: 7681-57-4 disodium disulphite		
Sensitisation	OECD 406	(guinea pig: negative)
	OECD 429	(negative) Local lymph node assay (LLNA) - Mouse Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
CAS: 100-97-0 methenamine		
Sensitisation	OECD 406	(guinea pig: positive)
	Patch test (human)	(positive) (IUCLID)

- · 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.
- · Information on components:
- CAS 7681-57-4: Did not show teratogenic effects in animal experients.
- CAS 7757-83-7: Did not show carcinogenic effects in animal experiments (IUCLID).
- CAS 7681-57-4: No impairment of reproductive performance in animal experiments (IUCLID).
- OECD 414: Teratogenicity testing
- OECD 473: Mutagenicity testing
- OECD 471, 474, 476, 487: Germ cell mutagenicity testing

,	yyyyy		
CAS: 7681	CAS: 7681-57-4 disodium disulphite		
OECD 471	OECD 471 (negative) (Bacterial Reverse Mutation Test - Ames test)		
CAS: 497-1	CAS: 497-19-8 sodium carbonate		
OECD 471	(Bacterial Reverse Mutation Test - Ames test) negative / Escherichia coli		
CAS: 100-97-0 methenamine			
OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test)		
OECD 474	(negative) (Mammalian Erythrocyte Micronucleus Test) (IUCLID)		

- · STOT (specific target organ toxicity) -single exposure Based on available data, the classification criteria are not met.
- STOT (specific target organ toxicity) -repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · Information on likely routes of exposure

When working with sodium metabisulfite, inhalative and dermal exposures are to be expected. [GESTIS]

· Additional toxicological information:

CAS: 7681-57-4 disodium disulphite

. (source: GESTIS)

Main toxic effects:

Acute: Irritant effect on the eyes and respiratory tract, acute intolerance reactions (in case of disposition) chronic: allergic skin diseases (rare)

Further information (Merck):

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

Persons with allergies and/or asthma may exhibit hypersensitivity to sulfites.

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CAS: 7775-14-6 sodium dithionite

(source: GESTIS)

From general professional experience, an irritating effect on the mucous membranes is pointed out.

An irritating effect on the eyes was demonstrated in several tests on the rabbit eye.

Irrespective of the low general toxicity, however, it should be taken into account that released bisulfite/sulfite can trigger acute hypersensitivity reactions in sulfite-sensitive people (often asthmatics) (usually after oral or inhalative intake of small doses).

- · 11.2 Information on other hazards
- · Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.
- · Other information

According to the information available to us, the chemical, physical and toxicological properties of the substances mentioned in Chapter 3 have not been thoroughly investigated.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:			
CAS: 768	31-57-4 disodium disulphite		
EC50	89 mg/l/48h (Daphnia magna) (OECD 202) (MERCK)		
IC50	48 mg/l/72h (Desmodesmus subspicatus) (OECD 201) (MERCK)		
LC50	150–220 mg/l/96h (rainbow trout) (DIN 38412 Teil 15) (Merck)		
CAS: 777	75-14-6 sodium dithionite		
EC50	98 mg/l/48h (Daphnia magna) MERCK		
IC50	206 mg/l/72h (Desmodesmus subspicatus) MERCK		
LC50	46–68 mg/l/96h (gold orfe) (DIN 38412) (Merck)		
CAS: 497-19-8 sodium carbonate			
EC50	220–227 mg/l/48h (Daphnia magna) (US-EPA) (Merck)		
LC50	300 mg/l/96h (bluegill) (IUCLID) (Registrant, ECHA)		
CAS: 100	0-97-0 methenamine		
EC50	36 mg/l/48h (Daphnia magna) (IUCLID)		
EC10	5 mg/l (fish)		
LC50 (sta	atic) 41 mg/l/96h (bluegill) (US-EPA)		
· Bacterial	toxicity:		
CAS: 7681-57-4 disodium disulphite			
EC50	56 mg/l (Pseudomonas putida) (17h) (IUCLID)		
CAS: 777	75-14-6 sodium dithionite		
EC50	107 mg/l (Pseudomonas putida)		

IUCLID

CAS: 100-97-0 methenamine

EC50 (static) >5000 mg/l (Bacterial toxicity) (DIN 38412) (Merck, Vibrio fischeri)

· 12.2 Persistence and degradability

CAS: 100-97-0 methenamine

OECD 302 C 39-47 % / 28 d (not readily biodegradable) (Modified MITI Test (II))

12.3 Bioaccumulative potential

Pow = n-octanol/wasser partition coefficient

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log Pow < 1 = Does not accumulate in organisms.

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CAS: 7775-14-6 sodium dithionite

log Pow <-4.7 (.) (calculated)
CAS: 100-97-0 methenamine

log Pow | -2.84 (.) (experimental) (IUCLID)

- · 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

- 12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.
- · 12.7 Other adverse effects

Reacts with water to form toxic decomposition products.

Avoid transfer into the environment.

· Water hazard:

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralised.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to disposers of hazardous waste.

European waste catalogue

16 05 06* laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: Transport inform	ation	
· 14.1 UN number or ID number		
· ADR, IMDG, IATA	Void	

Void

· ADR, IMDG, IATA

14.2 UN proper shipping name

· 14.3 Transport hazard class(es)

· ADR, IMDG, IATA

· Class Void

· 14.4 Packing group

· ADR, IMDG, IATA Void

• 14.5 Environmental hazards: Not applicable.

• 14.6 Special precautions for user Not applicable.

· 14.7 Maritime transport in bulk according to IMO

instruments Not applicable.

· Transport/Additional information: Not dangerous according to the above specifications.

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SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Poisons Act UK
- Regulated explosives precursors

CAS: 100-97-0 methenamine

Listed

Regulated poisons

None of the ingredients is listed.

· Reportable explosives precursors

None of the ingredients is listed.

· Reportable poisons

None of the ingredients is listed.

· Regulation (EU) 2019/1148 on the marketing and use of explosives precursors

not regulated: homogeneous mixture of more than five components with c <1% (w/w) substance Annex I or II

explosives precursors - ANNEX II

CAS: 100-97-0 methenamine

· Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (PIC)

None of the ingredients is listed.

 Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology:

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:

None of the ingredients is listed.

REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)

None of the ingredients is listed.

· LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)

None of the ingredients is listed.

· Substances of very high concern (SVHC) according to REACH, Article 57

This product does not contain any substances of very high concern above the legal concentration limit of ≥ 0.1% (w / w).

Substances of very high concern (SVHC) according to UK REACH

This product does not contain any substances of very high concern above the legal concentration limit of ≥ 0.1% (w / w).

- · Directive 2012/18/EU (SEVESO III):
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Information about limitation of use: Not required.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Training hints Provide adequate information, instruction and training for operators.

· Relevant phrases

H228 Flammable solid.

H251 Self-heating: may catch fire.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

EUH031 Contact with acids liberates toxic gas.

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· Abbreviations and acronyms:

OECD: Organisation for Economic Co-operation and Development

STOT: specific target organ toxicity

SE: single exposure

RE: repeated exposure EC50: half maximal effective concentration IC50: half maximal inhibitory concentration

NOEL or NOEC: No Observed Effect Level or Concentration

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances

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

DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative
Flam. Sol. 2: Flammable solids – Category 2
Self-heat. 1: Self-heating substances and mixtures – Category 1

Acute Tox. 4: Acute toxicity - Category 4

Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

· Sources

Data arise from safety data sheets, reference works and literature.

ECHA: European CHemicals Agency http://echa.europa.eu IUCLID (International Uniform Chemical Information Database)

RTECS (Registry of Toxic Effects of Chemical Substances)

GESTIS- Stoffdatenbank (Substance Database, Germany)

* Data compared to the previous version altered.

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