

Safety Data Sheet

Conforms to – Regulation (EC) No. 1907/2006 (REACH), Article 31, Annex II, as amended by UK SI 2021/904

KERAKOLL SETAFLEX SEMI RAPID GREY 20KG

Date of first edition: 3/13/2024

Safety Data Sheet dated 3/13/2024 version 1

kerakoll

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

1.1. Product identifier

Mixture identification:

Trade name: KERAKOLL SETAFLEX SEMI RAPID GREY 20KG

Trade code: KA0457

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

Recommended use: Cement-based adhesive mortar

Uses advised against: All uses other than recommended ones

1.3. Details of the supplier of the safety data sheet

Tilemaster Adhesives Ltd - Kerakoll Group

Tomlinson Road, Leyland, Lancashire, PR25 2DY,

United Kingdom

Tel. 01772 456831

safety@tilemasteradhesives.co.uk

1.4. Emergency telephone number

UK National Poisons Information Service.

E-mail: npis.birmingham@nhs.net; Tel: +44 (0)344 892 0111

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

EU CLP and GB CLP regulation:

Skin Irrit. 2	Causes skin irritation.
Eye Dam. 1	Causes serious eye damage.
Skin Sens. 1B	May cause an allergic skin reaction.
STOT SE 3	May cause respiratory irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

EU CLP and GB CLP regulation:

Hazard pictograms and Signal Word



Danger

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Precautionary statements

P261	Avoid breathing dust.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/clothing and eye/face protection.
P501	Dispose of contents/container in accordance with applicable regulations.

Contains

Portland Cement (Cr VI < 0,0002%)

Calcium diformate

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3. Other hazards

No PBT or vPvB substances present in concentration $\geq 0.1\%$

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: KERAKOLL SETAFLEX SEMI RAPID GREY 20KG

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

Qty	Name	Ident. Numb.	Classification	Registration Number
≥ 20 - < 50 %	Portland Cement (Cr VI $< 0,0002\%$)	CAS:65997-15-1 EC:266-043-4	Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1B, H317; STOT SE 3, H335	
≥ 1 - < 3 %	Calcium diformate	CAS:544-17-2 EC:208-863-7	Eye Dam. 1, H318	EU REACH: 01-2119486476-24

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

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.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

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

Eye irritation

Eye damages

Skin Irritation

Erythema

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).

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

For non emergency personnel:

- Wear personal protection equipment.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.
- Provide adequate ventilation.
- Use appropriate respiratory protection.
- See protective measures under point 7 and 8.

For emergency responders:

- Wear personal protection equipment.

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

- Suitable material for taking up: absorbing material, organic, sand
- 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.
- Use localized ventilation system.
- 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:

- Contaminated clothing should be changed before entering eating areas.
- Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials:

- None in particular.

Instructions as regards storage premises:

- Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

- None in particular

Industrial sector specific solutions:

- None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Occupational Exposure Limit
Quartz CAS: 14808-60-7	NATIONAL	AUSTRALIA	Long Term: 0.05 mg/m ³ (8h) Respirable fraction
	NATIONAL	HUNGARY	Long Term: 0.1 mg/m ³ (8h) Respirable fraction
	NATIONAL	IRELAND	Long Term: 0.1 mg/m ³ (8h) Respirable fraction
	NATIONAL	SPAIN	Long Term: 0.05 mg/m ³ (8h) Respirable fraction
	NATIONAL	SWITZERLAN D	Long Term: 0.15 mg/m ³ (8h) Respirable aerosol

NATIONAL	ITALY	Long Term: 0.1 mg/m ³ (8h) Polvere di silice cristallina respirabile (frazione inalabile). Rif:D.Lgs 81/2008
NATIONAL	INDIA	Long Term: 10 mg/m ³ (8h)
NATIONAL	PORTUGAL	Long Term: 0.05 mg/m ³ (8h) Respirable fraction
NATIONAL	SLOVENIA	Long Term: 0.05 mg/m ³ - 0.4 ppm (8h)
ACGIH		Long Term: 0.025 mg/m ³ (8h) R, A2 - Pulm fibrosis, lung cancer
NATIONAL	CROATIA	Long Term: 0.1 mg/m ³ Source: NN 1/2021
NATIONAL	AUSTRIA	Long Term: 0.05 mg/m ³ MAK, III C, A Source: BGBl. II Nr. 156/2021
NATIONAL	BELGIUM	Long Term: 0.1 mg/m ³ C Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	DENMARK	Long Term: 0.3 mg/m ³ Source: BEK nr 2203 af 29/11/2021
NATIONAL	DENMARK	Long Term: 0.1 mg/m ³ EK Source: BEK nr 2203 af 29/11/2021
NATIONAL	ESTONIA	Long Term: 0.1 mg/m ³ 1, C Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	FINLAND	Long Term: 0.05 mg/m ³ alveolijae, liite 3 Source: HTP-ARVOT 2020
NATIONAL	FRANCE	Long Term: 0.1 mg/m ³ La VLEP s'applique à la fraction alvéolaire. Forme de silice cristalline. Source: INRS outil65, article R. 4412-149 du Code du travail
NATIONAL	LITHUANIA	Long Term: 0.1 mg/m ³ Žiureti 1 priedo 3 punkta. Source: 2011 m. rugsejo 1 d. Nr. V-824/A1-389
NATIONAL	NETHERLAND S	Long Term: 0.075 mg/m ³ (2) Source: Arbeidsomstandighedenregeling - Lijst B1
NATIONAL	NORWAY	Long Term: 0.3 mg/m ³ K 7 Source: FOR-2021-06-28-2248
NATIONAL	NORWAY	Long Term: 0.05 mg/m ³ K G 7 21 Source: FOR-2021-06-28-2248
NATIONAL	POLAND	Long Term: 0.1 mg/m ³ 6) Source: Dz.U. 2018 poz. 1286
NATIONAL	SWEDEN	Long Term: 0.1 mg/m ³ C, M, 3 Source: AFS 2021:3
Portland Cement (Cr VI < 0,0002%) CAS: 65997-15-1	NATIONAL	AUSTRALIA Long Term: 10 mg/m ³ (8h) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
	NATIONAL	GERMANY Long Term: 5 mg/m ³ (8h) DFG
	NATIONAL	NETHERLAND S Long Term: 1 mg/m ³ (8h) Respirable dust
	NATIONAL	PORTUGAL Long Term: 10 mg/m ³ (8h)
	NATIONAL	PORTUGAL Long Term: 1 mg/m ³ (8h)

NATIONAL	SWITZERLAN D	Long Term: 5 mg/m ³ (8h) Inhalable aerosol
NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 10 mg/m ³ (8h) Inhalable aerosol
NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m ³ (8h) Respirable aerosol
ACGIH		Long Term: 1 mg/m ³ (8h) E,R, A4 - Pulm func, resp symptoms, asthma
NATIONAL	BELGIUM	Long Term: 1 mg/m ³ Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	CROATIA U	Long Term: 10 mg/m ³ Source: NN 1/2021
NATIONAL	CROATIA R	Long Term: 4 mg/m ³ Source: NN 1/2021
NATIONAL	IRELAND	Long Term: 1 mg/m ³ R Source: 2021 Code of Practice
NATIONAL	SPAIN	Long Term: 4 mg/m ³ e, d Source: LEP 2022
NATIONAL	AUSTRIA	Long Term: 5 mg/m ³ MAK, E Source: BGBl. II Nr. 156/2021
NATIONAL	FINLAND	Long Term: 5 mg/m ³ hengittyvä pöly Source: HTP-ARVOT 2020
NATIONAL	FINLAND	Long Term: 1 mg/m ³ alveolijae Source: HTP-ARVOT 2020
NATIONAL	HUNGARY	Long Term: 10 mg/m ³ N Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	LATVIA	Long Term: 6 mg/m ³ Source: KN325P1
NATIONAL	POLAND	Long Term: 6 mg/m ³ 4) Source: Dz.U. 2018 poz. 1286
NATIONAL	POLAND	Long Term: 2 mg/m ³ 6), 7) Source: Dz.U. 2018 poz. 1286
LIMESTONE CAS: 1317-65-3	NATIONAL	SPAIN Long Term: 10 mg/m ³ (8h) Inhalable aerosol
	NATIONAL	SWITZERLAN D Long Term: 3 mg/m ³ (8h) Respirable aerosol
	NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND Long Term: 10 mg/m ³ (8h) Inhalable aerosol

NATIONAL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Long Term: 4 mg/m ³ (8h) Respirable aerosol
NATIONAL	CROATIA	Long Term: 10 mg/m ³ (8h)
NATIONAL	FRANCE	Long Term: 10 mg/m ³ (8h)
NATIONAL	NETHERLANDS	Long Term: 10 mg/m ³ (8h)
NATIONAL	PORTUGAL	Long Term: 10 mg/m ³ (8h)
NATIONAL	BULGARIA	Long Term: 10 mg/m ³ Source: ?????? ? 13 ?? 30 ??????? 2003 ?.
NATIONAL	ESTONIA	Long Term: 10 mg/m ³ Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	ESTONIA	Long Term: 5 mg/m ³ Source: Vabariigi Valitsuse, 20. märtsi 2001. a määrus nr 105
NATIONAL	GREECE	Long Term: 10 mg/m ³ e?sp? Source: F?? 94/?` 13.5.1999
NATIONAL	GREECE	Long Term: 5 mg/m ³ a?ap? Source: F?? 94/?` 13.5.1999
NATIONAL	GREECE	Long Term: 10 mg/m ³ e?sp? Source: F?? 94/?` 13.5.1999
NATIONAL	GREECE	Long Term: 5 mg/m ³ a?ap? Source: F?? 94/?` 13.5.1999
NATIONAL	HUNGARY	Long Term: 10 mg/m ³ N Source: 5/2020. (II. 6.) ITM rendelet
NATIONAL	BELGIUM	Long Term: 10 mg/m ³ Source: Code du bien-être au travail, Livre VI, Titre 1er, Annexe VI.1-1
NATIONAL	IRELAND	Long Term: 10 mg/m ³ Source: 2021 Code of Practice
NATIONAL	IRELAND	Long Term: 4 mg/m ³ Source: 2021 Code of Practice

Predicted No Effect Concentration (PNEC) values

Calcium diformate
CAS: 544-17-2

Exposure Route: Fresh Water; PNEC Limit: 2 mg/l

Exposure Route: Intermittent releases (fresh water); PNEC Limit: 10 mg/l

Exposure Route: Marine water; PNEC Limit: 200 µg/l

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 2.21 mg/l

Exposure Route: Marine water sediments; PNEC Limit: 1.34 mg/kg

Exposure Route: Freshwater sediments; PNEC Limit: 13.4 mg/kg

Exposure Route: Soil; PNEC Limit: 1.5 mg/kg

Derived No Effect Level (DNEL) values

Calcium diformate
CAS: 544-17-2

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Professional: 337 mg/m³; Consumer: 83.2 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Consumer: 83.2 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Professional: 4.78 mg/kg; Consumer: 2390 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Short Term, local effects
Worker Professional: 16.7 mg/cm²; Consumer: 8.3 mg/cm²

Exposure Route: Human Dermal; Exposure Frequency: Long Term, local effects
Consumer: 8.3 mg/cm²

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 23.9 mg/kg

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

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

Respiratory protection:

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: Solid

Appearance and colour: Powder Grey

Odour: Odourless

Odour threshold: N.A.

pH: >10

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Flash point: Not Applicable

Evaporation rate: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 1.19 g/cm³ Notes: @ 20°C

Solubility in water: Slightly soluble

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Viscosity: N.A.

Explosive properties: N.A.

Oxidizing properties: N.A.

Solid/gas flammability: N.A.

Volatile Organic compounds - VOCs = 0 % ; 0 g/l

9.2. Other information

Substance Groups relevant properties N.A.

Miscibility: N.A.

Conductivity: N.A.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological Information of the Preparation

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	The product is classified: Skin Irrit. 2(H315)
c) serious eye damage/irritation	The product is classified: Eye Dam. 1(H318)
d) respiratory or skin sensitisation	The product is classified: Skin Sens. 1B(H317)
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	The product is classified: STOT SE 3(H335)
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

Calcium diformate	a) acute toxicity	LD50 Oral Rat = 3050 mg/kg LC50 Inhalation Dust Rat > 0.67 mg/l 4h LD50 Skin Rat > 2000 mg/kg 24h
	b) skin corrosion/irritation	Skin Irritant Rabbit Negative
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes
	d) respiratory or skin sensitisation	Skin Sensitization Guinea pig Negative
	f) carcinogenicity	Carcinogenicity Oral Rat = 2000 mg/kg Genotoxicity Negative
	g) reproductive toxicity	No Observed Adverse Effect Level Rat = 956 mg/kg

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
Calcium diformate	CAS: 544-17-2 - EINECS: 208- 863-7	a) Aquatic acute toxicity : LC50 Fish Danio zebra >= 1000 mg/L 96h German national guideline
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna > 1000 mg/L 48h
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata > 1000 mg/L 72h
		a) Aquatic acute toxicity : NOEC Algae Pseudokirchneriella subcapitata = 500 mg/L 72h
		c) Bacteria toxicity : NOEC Sludge >= 22.1 mg/L Guideline OECD 306 - 28h

12.2. Persistence and degradability

Component	Persistence/Degradability:	Value	Notes:
Calcium diformate	Readily biodegradable	86.000	Guideline 306

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value
Calcium diformate	Bioaccumulative	LogPow	-2.300

12.4. Mobility in soil

Component	Test	Value
Calcium diformate	Koc	31.000

12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration $\geq 0.1\%$

12.6. Other adverse effects

N.A.

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. Disposal through discharge into wastewater is not permitted

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number

N.A.

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.

Road and Rail (ADR-RID):

N.A.

Air (IATA):

N.A.

Sea (IMDG):

N.A.

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

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. 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)
Regulation (EU) 2015/830

REACH regulation as changed by the REACH etc. (Amendment etc.) (EU Exit) Regulations (UK REACH)

CLP regulation as changed by the Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations (GB 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: 3

Restrictions related to the substances contained: 75

Additional Regulatory Information for Great Britain

EU REACH Restriction 75 was not retained in Great Britain law

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

N.A.

Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

German Water Hazard Class.

3: Severe hazard to waters

SVHC Substances:

No SVHC substances present in concentration $\geq 0.1\%$

Dir. 2010/75/EC (VOC directive)

Volatile Organic compounds - VOCs = 0.00 %

Volatile Organic compounds - VOCs = 0.00 g/L

15.2. Chemical safety assessment

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

SECTION 16: Other information

Code	Description
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Code	Hazard class and hazard category	Description
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3

Classification and procedure used to derive the classification for mixtures according to EU CLP and GB CLP regulation:

Classification according to EU CLP and GB CLP	Classification procedure
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Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1B, H317	Calculation method
STOT SE 3, H335	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.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
BCF: Biological Concentration Factor
BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
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.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: Keep Away From Heat
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Lethal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
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.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.