

**Safety Data Sheet**

according to UK REACH Regulation

ACMOSITAL

Revision date: 01.07.2021

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

ACMOSITAL

UFI: 55D2-AQVP-JMQ7-TN4C

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

Resin dissolver

Uses advised against

Consumer uses: Private households (= general public = consumers)

Sector of uses [SU]: 21

Do not use for private purposes (household).

Relevant identified uses - Further information:

Industrial uses: Uses of substances as such or in preparations at industrial sites

Sector of uses [SU]: 3

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Sector of uses [SU]: 22

The product is intended for professional use.

1.3. Details of the supplier of the safety data sheet**Manufacturer**

Company name: ACMOS CHEMIE KG

Street: Industriestrasse 49

Place: D-28199 Bremen

Post-office box: 10 10 69

D-28010 Bremen

Telephone: +49 (0)421-5189-0

Telefax: +49 (0)421-511415

e-mail: acmos@acmos.com

Contact person: Mr. Stephan Dryhaus

e-mail: sds@acmos.comInternet: www.acmos.com

Responsible Department: Laboratory (Division: Occupational- / Product security) - see under section 16

1.4. Emergency telephone number:

+49 (0)551 19240 (Emergency information service / official advisory body:

Giftinformationszentrum Nord, Universität Göttingen, 24 h from mo. - su.)

Language(s) of Telephone Service: DE, EN

Supplier

Company name: Realwood Machinery & Consumables Limited

Street: Unit 29, Edison Road, St. Ives

Place: GB-PE27 3LF Cambridgeshire

Telephone: +44 1480496660

Telefax: +44 1480461366

e-mail: sales@realwoodmachinery.co.uk

Contact person: Mr. David Levett

Internet: www.realwoodmachinery.co.uk**1.4. Emergency telephone number:**

+44 111 (Emergency information service / official advisory body: National Poisons

Information Service - NPIS Birmingham) (<https://www.npis.org>)

Language(s) of Telephone Service: EN

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**

Hazard categories:

Skin corrosion/irritation: Skin Corr. 1B

Hazard Statements:

Causes severe skin burns and eye damage.

2.2. Label elements**GB CLP Regulation****Hazard components for labelling**

metasilicic acid, disodium salt, pentahydrate

Signal word: Danger

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Pictograms:

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe vapours.
 P280 Wear protective gloves/protective clothing/eye protection.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 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 POISON CENTER/doctor.

Additional advice on labelling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

2.3. Other hazards

Adverse physicochemical effects:
 See section 9 for physical and chemical properties.

Adverse human health effects and symptoms:
 See section 11 for toxicological information.

Adverse environmental effects:
 See section 12 for environmental information.

Other adverse effects:
 Special danger of slipping by leaking/spilling product.

Results of PBT-/vPvB-assesment:
 See under section 12.5 - Results of PBT and vPvB assessment.

SECTION 3: Composition/information on ingredients
3.2. Mixtures
Chemical characterization

Solution of active ingredients in water

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
10213-79-3	metasilicic acid, disodium salt, pentahydrate			15 - < 20 %
	229-912-9			
	Met. Corr. 1, Skin Corr. 1B, STOT SE 3; H290 H314 H335			
107-21-1	ethane-1,2-diol (ethylene glycol)			5 - < 10 %
	203-473-3	603-027-00-1	01-2119456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373			
100-51-6	benzyl alcohol			1 - < 5 %
	202-859-9	603-057-00-5	01-2119492630-38	
	Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2; H332 H302 H319			

Full text of H and EUH statements: see section 16.

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Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
10213-79-3	229-912-9	metasilicic acid, disodium salt, pentahydrate	15 - < 20 %
		inhalation: LC50 = > 2,06 mg/l (dusts or mists); dermal: LD50 = > 5000 mg/kg; oral: LD50 = 500 - 1920 mg/kg	
107-21-1	203-473-3	ethane-1,2-diol (ethylene glycol)	5 - < 10 %
		inhalation: LC50 = > 2,5 mg/l (dusts or mists); dermal: LD50 = > 3500 mg/kg; oral: LD50 = > 1600 mg/kg	
100-51-6	202-859-9	benzyl alcohol	1 - < 5 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = > 4,178 mg/l (dusts or mists); oral: LD50 = 1620 mg/kg	

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove affected person from the danger area and lay down.

Take off immediately all contaminated clothing and wash it before reuse.

Put victim at rest, cover with a blanket and keep warm.

Do not leave affected person unattended.

If a person vomits when lying on his back, place him in the recovery position.

If breathing is irregular or stopped, administer artificial respiration.

If unconscious but breathing normally, place in recovery position and seek medical advice.

Never give anything by mouth to an unconscious person or a person with cramps.

In the event of cardiac arrest immediately perform cardiopulmonary resuscitation.

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

Self-protection of the first aider:

Wear personal protection equipment (refer to section 8).

First Aid.

Notes for the doctor:

Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and badly.

After inhalation

Remove victim out of the danger area.

Provide fresh air.

In case of respiratory tract irritation, consult a physician.

After contact with skin

Wash immediately with:

Water and soap

Subsequently wash off with:

Acetic acid (0,5 - 1 %)

Rub greasy ointment into the skin.

Do not wash with:

Solvents/Thinner

In case of skin irritation, consult a physician.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

If present: Initial treatment with Previn. (Previn is a registered trademark).

Protect uninjured eye.

After ingestion

Do NOT induce vomiting.

Rinse mouth thoroughly with water.

Let water be drunken in little sips (dilution effect). Lemon juice, diluted

Never give anything by mouth to an unconscious person or a person with cramps.

Call a physician immediately.

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

The following symptoms may occur:

Cough

Gastrointestinal complaints

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Abdominal pain
Gastric perforation
Nausea

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

Treat symptomatically.

A suitable eye rinse equipment shall be provided, if required.
Use eye rinse liquid with room temperature, if possible.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Full water jet
Water spray jet
Water mist
Extinguishing powder (ABC-powder)
Foam
Carbon dioxide (CO₂)

Fire class: not relevant

Unsuitable extinguishing media

None known

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:
None known
The product itself does not burn.

5.3. Advice for firefighters

Usual measures of preventive and averting fire protection.
Co-ordinate fire-fighting measures to the fire surroundings.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters
not relevant

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General measures**

Avoid contact with skin, eyes and clothes.
Do not breathe vapour/aerosol.
Prevent further leakage or spillage if safe to do so.
Provide adequate ventilation.
Special danger of slipping by leaking/spilling product.

For non-emergency personnel:
Use personal protection equipment.
Walk out of the danger zone and notify trained personnel.
Emergency procedures:
Keep the factory emergency plan and the information chain.

For emergency responders:
Use personal protection equipment.
The personal protective equipment must be adapted to the situation.
Suitable material:
See under section 8.2 - Personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.
Do not allow to enter into soil/subsoil.
Ensure waste is collected and contained.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

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Other information

For containment:

Repair leaks if without risk.

Move containers from spill area.

Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Cover drains.

For cleaning up:

Clean-up methods - large spillage:

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Shovel into suitable container for disposal.

Local authorities should be advised if significant spillages cannot be contained.

Clean-up methods - small spillage:

Clear spills immediately.

Wipe up with absorbent material (eg. cloth, fleece).

Collect in closed and suitable containers for disposal.

Clear contaminated areas thoroughly.

Recommended cleansing agent:

Clean with detergents. Avoid solvent cleaners.

Retain contaminated washing water and dispose it.

Ensure all waste water is collected and treated via a waste water treatment plant.

Ventilate affected area.

Suitable material for taking up:

Sand

Kieselguhr

Universal binder

Absorbing material, organic

Unsuitable material for taking up:

None known

Suitable material for diluting or neutralizing:

Acetic acid, diluted

Unsuitable material for diluting or neutralising:

None known

6.4. Reference to other sections

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Measures to prevent aerosol and dust generation:

All work processes must always be designed so that the following is as low as possible:

Inhalation of vapours or spray/mists

Eye contact

Skin contact

Technical ventilation of workplace

During filling, metering and sampling should be used if possible:

No special measures are necessary.

Recirculation of exhaust air is not recommended.

Always close containers tightly after the removal of product.

Advice on protection against fire and explosion

Measures to prevent fire:

The product is not: Combustible

Usual measures for fire prevention.

Fire-fighting equipment on the basis of class B.

Further information on handling

Environmental precautions:

Transfer wash-downs in sealed containers.

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Provide for retaining containers, e.g. floor pan without outflow.

Advices on general occupational hygiene:

Wear personal protection equipment (refer to section 8).

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

General industrial hygiene practice.

Handle in accordance with good industrial hygiene and safety practice.

Working places should be designed to allow cleaning at any time.

Floors, walls and other surfaces in the hazard area must be cleaned regularly.

When using do not eat, drink, smoke, sniff.

Thorough skin-cleansing after handling the product.

Used working clothes should not be worn outside the work area.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Suitable floor material:

Floors should be impervious, resistant to liquids and easy to clean.

Protect against:

Heat

Cold

Recommended storage temperature: +10 ... +30 °C

Keep away from:

Food and feedingstuffs

Packaging materials:

Suitable container/equipment material:

Keep/Store only in original container.

Unsuitable container/equipment material:

See under section 8.2 - Hand protection.

Hints on joint storage

Do not store together with:

Strong acid

Storage class:

1 (Explosive hazardous substances)

5.1 A (Highly oxidising substances)

5.2 (Organic peroxides and self-reactive substances)

6.2 (Infectious substances)

7 (Radioactive substances)

Further information on storage conditions

Technical measures and storage conditions:

The valid water and zoning ordinances must be observed.

Keep container tightly closed.

Protect containers against damage.

Ensure adequate ventilation of the storage area.

Do not store outside.

See also instructions on the label.

7.3. Specific end use(s)

Recommendation:

Possibilities for substitution and references to less hazardous products:

This product was designed for a special application purpose and optimized appropriately.

In case of questions regarding product and application, please contact our field service in line with customer service or our technical sales department.

Observe technical data sheet.

Industrial sector specific solutions:

Hazardous substance information systems of professional associations:

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**



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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
107-21-1	Ethane-1,2-diol, particulate	-	10		TWA (8 h)	WEL
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	WEL
		40	104		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	DNEL type	Exposure route	Effect	Value
10213-79-3	metasilicic acid, disodium salt, pentahydrate	Worker DNEL, long-term	inhalation	systemic	6,22 mg/m ³
		Worker DNEL, long-term	dermal	systemic	1,49 mg/kg bw/day
		Consumer DNEL, long-term	inhalation	systemic	1,55 mg/m ³
		Consumer DNEL, long-term	dermal	systemic	0,74 mg/kg bw/day
		Consumer DNEL, long-term	oral	systemic	0,74 mg/kg bw/day
107-21-1	ethane-1,2-diol (ethylene glycol)	Worker DNEL, long-term	dermal	systemic	106 mg/kg bw/day
		Worker DNEL, long-term	inhalation	local	35 mg/m ³
		Consumer DNEL, long-term	dermal	systemic	53 mg/kg bw/day
		Consumer DNEL, long-term	inhalation	local	7 mg/m ³
100-51-6	benzyl alcohol	Worker DNEL, acute	dermal	systemic	40 mg/kg bw/day
		Worker DNEL, long-term	dermal	systemic	8 mg/kg bw/day
		Worker DNEL, acute	inhalation	systemic	110 mg/m ³
		Worker DNEL, long-term	inhalation	systemic	22 mg/m ³
		Consumer DNEL, acute	dermal	systemic	20 mg/kg bw/day
		Consumer DNEL, long-term	dermal	systemic	4 mg/kg bw/day
		Consumer DNEL, acute	inhalation	systemic	27 mg/m ³
		Consumer DNEL, long-term	inhalation	systemic	5,4 mg/m ³
		Consumer DNEL, acute	oral	systemic	20 mg/kg bw/day
		Consumer DNEL, long-term	oral	systemic	4 mg/kg bw/day



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PNEC values

CAS No	Substance	Value
Environmental compartment		
10213-79-3	metasilicic acid, disodium salt, pentahydrate	
Freshwater		7,5 mg/l
Marine water		1 mg/l
107-21-1 ethane-1,2-diol (ethylene glycol)		
Freshwater		10 mg/l
Marine water		1 mg/l
Freshwater sediment		20,9 mg/kg
Micro-organisms in sewage treatment plants (STP)		199,5 mg/l
Soil		1,53 mg/kg
100-51-6 benzyl alcohol		
Freshwater		1 mg/l
Marine water		0,1 mg/l
Freshwater sediment		5,27 mg/kg
Marine sediment		0,527 mg/kg
Micro-organisms in sewage treatment plants (STP)		39 mg/l
Soil		0,456 mg/kg

Additional advice on limit values

GESTIS - International Limit Values - Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA):

<http://limitvalue.ifa.dguv.de>

Country information (EU)

(<http://www.dguv.de/ifa/fachinfos/occupational-exposure-limit-values/foreign-and-eu-limit-values/index.jsp>)

Country information (GB) (<http://www.hse.gov.uk/pubns/books/eh40.htm>)

Occupational Exposure Limits of EU-memberstates - European Agency for Safety and Health at Work (OSHA)

(<http://osha.europa.eu/en/topics/ds/oel/index.stm/members.stm>)

Source of law: EH40 (GB) (<http://www.hse.gov.uk>)

Recommended monitoring procedures:

Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents (BS EN 14042):

Personal air monitoring

Room air monitoring

Exposure limits at intended use:

See under section 8.1 - Occupational exposure limit values.

DNEL-/PNEC-values:

There are no exposure scenarios attached in the Appendix of this Safety Data Sheet.

Risk management measures according to used control banding approach:

Control banding for chemicals according to the ILO CHEMICAL CONTROL TOOLKIT (ICCT): ICCT-Guidelines and Control Guidance Sheets (http://www.ilo.org/legacy/english/protection/safework/ctrl_banding/toolkit/main_guide.pdf)

Used model:

Consider appropriate model solutions according to good engineering practices on designing the working process, if available.

8.2. Exposure controls

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Appropriate engineering controls

Substance/mixture related measures to prevent exposure during identified uses:

Technical measures to prevent exposure:

Design of appropriate work processes and engineering controls and the use of adequate materials (physical cut-off of man and machine, model solutions as certified working methods, working appliance according to the state of the art, working appliance for prevention of skin contact, models of working times).

Organisational measures to prevent exposure:

Execution of collective protection measures at source and appropriate organisational measures (local exhaust ventilation, ventilation by technical means, general ventilation, measures on averting a danger at breakdowns / at emergencies / after accidents, first-aid-measures, manner related measures: operating instruction / instruction of employees, occupational medicine health precaution).

Structural measures to prevent exposure:

Execution of individual and personnel protection measures (personal protective equipment - PPE).

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Technical measures and the application of suitable work processes have priority over personal protection equipment.

References for design of technical equipment:

See under section 7.1 - Precautions for safe handling.

Summary of the risk management measures for exposure scenario:

Use only the following product amount per time unit:

No information available.

Minimum room-width and room-height for handling/application:

No information available.

Minimum room ventilation rate for handling/application (air changes per hour):

No information available.

Individual protection measures, such as personal protective equipment

Eye/face protection

If required according to hazard assessment:

Suitable eye protection:

Eye glasses with side protection (EN 166)

goggles (EN 166)

Face protection shield

Recommended eye protection articles:

UVEX I-VO / UVEX I-3 / UVEX SUPER OTG

UVEX ULTRASONIC / UVEX ULTRAVISION

Or comparable articles from other companies.

Hand protection

Skin protection:

Preventive skin protection.:

Draw up skin protection programme.

Before starting work, apply water-resistant skincare preparations.

e.g. saniwip®, dualin® (PETER GREVEN PHYSIODERM)

Wash hands before breaks and after work.

e.g. ecosan®, topscrub® soft / topscrub® extra / topscrub® nature (PETER GREVEN PHYSIODERM)

After cleaning apply high-fat content skin care cream.

e.g. physioderm® creme, cura soft® / cUrea soft® (PETER GREVEN PHYSIODERM)

Apply skin care products after work.

If required according to hazard assessment:

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Decrease wearing protection gloves to an inevitable degree to avoid skin rash.

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Technical and organizational protective actions have to be preferred.
Breakthrough times and swelling properties of the material must be taken into consideration.
Check leak tightness/impermeability prior to use.
Wear cotton undermitten if possible.
Change preventive gloves once by hour or use special skin-protective preparations for protective gloves carrier,
e.g. physioderm® proGlove (PETER GREVEN PHYSIODERM)
Take recovery periods for skin regeneration.
Do not wear gloves near rotary machines and tools.
Dispose preventive gloves after defect or expiry of wearing time. Replace when worn.
In the case of wanting to use the gloves again, clean them before taking off and air them well.

Wearing time with permanent contact:

Suitable gloves type

Gloves with long cuffs

Recommended glove articles:

Suitable materials at long term, direct contact (Recommended: Preventive index 6, accordingly > 480 min. permeation time in accordance to EN 374):

Nitrile rubber / NBR (KCL-CAMATRIL VELOURS® - Art. No. 730) - Layer thickness: 0,4 mm

Or comparable articles from other companies.

Unsuitable material:

NR (natural rubber, natural latex)

Wearing time with occasional contact (splashes):

Suitable gloves type

Disposable gloves

Recommended glove articles:

Suitable materials at short term contact or splash (Recommended: Preventive index 3, accordingly > 60 min. permeation time in accordance to EN 374):

Disposable gloves of special nitrile rubber / NBR (KCL-DERMATRIL® P - Art. No. 743) - Layer thickness: 0,2 mm

Or comparable articles from other companies.

The statements are based on self-tests, literary reference and information of glove manufacturers or have been derived from similar substances by analogy.

Source: CHEMIKALIEN-MANAGER - KCL software for hand protection.

It has to be noticed, that daily time of use of chemical protective gloves may be quite shorter in practice because of many factors of influence (e.g. thermal and mechanical stress as well as special conditions on the floor) than the permeation time determined in accordance to EN 374.

The respective permeation time doubles/halvens at about 1,5 times larger/lower layer thickness.

Declared permeation times according to EN 374 are not carried out under practical conditions. Therefore a maximum wearing time up to 50 % of breakthrough time is recommended.

They relate to the pure solvent as mean component.

Barrier creams are not substitutes for body protection.

Skin protection

If required according to hazard assessment:

Suitable protective clothing:

Overall, Natural fibres (e.g. cotton) (EN 340)

Chemical resistant safety shoes with conductible sole (EN ISO 20345)

Wash contaminated clothing prior to re-use.

Used working clothes should not be worn outside the work area.

Street clothing should be stored separately from work clothing.

Thermal hazards:

No thermal hazards during use of this product.

Respiratory protection

If required according to hazard assessment:

Respiratory protection necessary at:

exceeding exposure limit values +

high concentrations / prolonged exposure / insufficient ventilation / insufficient exhaust

Use only respiratory protection equipment with CE-symbol including four digit test number.

Filter types: A, B, E, K. Class 1: Maximum permitted contaminant concentration in inhaled air = 1000 mL/m3 (0.1 % by

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vol.); class 2: maximum permitted contaminant concentration in inhaled air = 5000 mL/m³ (0.5 % by vol.); class 3: maximum permitted contaminant concentration in inhaled air = 10000 mL/m³ (1.0 % by vol.)
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).
The use of filter equipment requires a minimum oxygen content of 17 Vol-% in the surrounding atmosphere and that the maximum permitted gas concentration - normally 0,5 Vol-% - is not exceeded.

Suitable respiratory protection apparatus:

Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit. P3 filter: up to a max. of 30 times the expo.

Recommended respiratory protection articles:

Half mask or quarter mask with combination filter A1P1/A2P2 for gases, vapors and particles. (EN 140, EN 14387)
Filtering half mask or quarter mask with combination filter FFA1 P1/FFA2P2 for gases, vapors and particles. (EN 405)
Gas filtrating Half-face mask FFA (EN 405)
Model 4251 (FFA1P1 - 1000 ml/m³) / 4255 (FFA2P2SL - 5000 ml/m³) (3M)
Half-face mask or Quarter-face mask with gas filter (EN 140, EN 14387)
Filter type 6051 (A1 - 1000 ml/m³) / 6055 (A2 - 5000 ml/m³) (3M)
Full-face mask with gas filter (EN 136, EN 14387)
Gas filter type: A, Indication colour: brown
Or comparable articles from other companies.

Environmental exposure controls

Environmental exposure controls:
Technical measures to prevent exposure:
Discharge exhaust air only with suitable separators to atmosphere.
Organisational measures to prevent exposure:
Should not be released into the environment.
Structural measures to prevent exposure:

Use the following recovery and/or abatement technique for cleaning waste gases:

Exhaust air scrubber
Adsorption

Further information see under section 6.2 - Environmental precautions.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: liquid
Colour: blue
Odour: amine-like

Test method**Changes in the physical state**

Melting point/freezing point: < 0 °C literature value
Boiling point or initial boiling point and boiling range: > 100 °C literature value
Sublimation point: not applicable
Softening point: not determined
Pour point: not determined
Flash point: not applicable

Flammability

Solid/liquid: not applicable (Liquid)
Gas: not applicable (Liquid)

Explosive properties

No flash point up to 100 °C.

Lower explosion limits: not relevant
Upper explosion limits: not relevant
Auto-ignition temperature: not relevant

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Self-ignition temperature

Solid:

Not pyrophoric.

Gas:

Not pyrophoric.

Decomposition temperature:

not relevant

Oxidizing properties

not relevant

pH-Value:

13,5 DIN 19268

Viscosity / dynamic:

not determined

Viscosity / kinematic:

<= 20,5 mm²/s DIN 53015

(at 40 °C)

Flow time:

26 s 3 DIN EN ISO 2431

(at 23 °C)

Water solubility:

easily soluble

(at 20 °C)

Solubility in other solvents

miscible with most organic solvents (Alcohols, aldehydes, Ketone)

Partition coefficient n-octanol/water:

not applicable (Mixtures)

Vapour pressure:

Corresponds to the vapour pressure of water. < literature value

(at 20 °C)

23 hPa

Vapour pressure:

Corresponds to the vapour pressure of water. < literature value

(at 50 °C)

123 hPa

Density (at 20 °C):

1,1 g/cm³ DIN 51757

Bulk density:

not applicable (Liquid)

Relative vapour density:

not determined

9.2. Other information

Other safety characteristics

Solvent separation test:

not applicable

Solvent content:

not determined

Solid content:

not determined

Evaporation rate:

not determined

Further Information

Odour threshold: No data available

Surface tension: No data available

Fat solubility: No data available

Calculated oxidation potential of the mixture (OP): not relevant

Substance group relevant properties:

Data relevant with regard to physical hazard classes (supplemental):

Explosives

not applicable

Flammable gases

Non-flammable. / not applicable (Liquid)

Aerosols

Non-flammable. / not applicable (Liquid)

Oxidising gas

Not oxidising. / not applicable (Liquid)

Gases under pressure

not applicable (Liquid)

Flammable liquids

Non-flammable.

flammable solids

Non-flammable. / not applicable (Liquid)

Self-reactive substances and mixtures

not applicable

Pyrophoric liquids

Not pyrophoric.

Pyrophoric solids

Not pyrophoric. / not applicable (Liquid)

self-heating substances and mixtures

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not applicable
Substances or mixtures which, in contact with water, emit flammable gases
not applicable
Oxidising liquids
Not oxidising.
Oxidising solids
Not oxidising. / not applicable (Liquid)
Organic peroxides
not applicable
Corrosive to metals.
Not corrosive to metals.
UN Recommendations on the Transport of Dangerous Goods -
Manual of Tests and Criteria, Part III, Subsection 37.4.1.
Corrosion rate (mm steel/year) < 6,25 mm/a / < - 13,5 % (0,00 mm/a / - 0,00 %)
Corrosion rate (mm aluminium/year) < 6,25 mm/a / < - 13,5 % (0,21 mm/a / - 0,45 %)

SECTION 10: Stability and reactivity**10.1. Reactivity**

The product is chemically stable under recommended conditions of storage, use and temperature.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Further information see under section 7.2 - Conditions for safe storage, including any incompatibilities.

Further information see under section 10.5 - Incompatible materials.

10.5. Incompatible materials

Violent reaction with:

Acid, concentrated

Further information see under section 7.1 - Precautions for safe handling.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

No known hazardous decomposition products.

Under fire conditions: See under section 5.2 - Special hazards arising from the substance or mixture.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****Toxicokinetics, metabolism and distribution**

There are no data available on the preparation/mixture itself.

The product has not been tested.

Information on likely routes of exposure /

Symptoms related to the physical, chemical and toxicological characteristics:

See under section 4.2 - Most important symptoms and effects, both acute and delayed.

Exposure route:

In case of ingestion:

strongly corrosive.

Ingestion of aqueous solution causes gastrointestinal burns.

In case of skin contact:

strongly corrosive.

The product causes burns of eyes, skin and mucous membranes.

In case of inhalation:

slightly irritant but not relevant for classification.

In case of eye contact:

strongly corrosive.

The product causes burns of eyes, skin and mucous membranes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Not relevant

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Interactive effects:
Not relevant

Absence of specific data:

No data is available on the product itself. Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several components.

However, some datas are not complete regarding particular main components. Nevertheless according to the experience of the manufacturer there are no other hazards expected then those which are already mentioned on the label.

Mixture versus substance information:

Not relevant

Acute toxicity

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

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
10213-79-3	metasilicic acid, disodium salt, pentahydrate					
	oral	LD50 mg/kg	500 - 1920	Rat	ECHA / Supplier (anhydrous)	
	dermal	LD50 mg/kg	> 5000	Rat	ECHA / Supplier (anhydrous)	EPA OPPTS 870.1200
	inhalation (4 h) aerosol	LC50 mg/l	> 2,06	Rat	ECHA / Supplier (anhydrous)	US-EPA-Methode
107-21-1	ethane-1,2-diol (ethylene glycol)					
	oral	LD50 mg/kg	> 1600	Practical experience/human evidence	Supplier	
	dermal	LD50 mg/kg	> 3500	Mouse	Supplier / ECHA	
	inhalation (4 h) aerosol	LC50	> 2,5 mg/l	Rat	Supplier / ECHA	[6h]
100-51-6	benzyl alcohol					
	oral	LD50 mg/kg	1620	Rat	ECHA	
	inhalation vapour	ATE	11 mg/l			
	inhalation (4 h) aerosol	LC50 mg/l	> 4,178	Rat	ECHA	OECD 403

Irritation and corrosivity

Causes severe skin burns and eye damage.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards**Endocrine disrupting properties**

Endocrine disrupting potential (Health):

not applicable

SECTION 12: Ecological information**12.1. Toxicity****Aquatic toxicity:****Acute (short-term) fish toxicity:**

There are no data available on the preparation/mixture itself. The product has not been tested.

Acute (short-term) toxicity to crustacea:

There are no data available on the preparation/mixture itself. The product has not been tested.

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Acute (short-term) toxicity to algae and cyanobacteria:

There are no data available on the preparation/mixture itself. The product has not been tested.

Chronic (long-term) toxicity to aquatic invertebrate:

There are no data available on the preparation/mixture itself. The product has not been tested.

Chronic (long-term) fish toxicity:

There are no data available on the preparation/mixture itself. The product has not been tested.

Toxicity to other aquatic plants/organisms:

No data available (Substances/Ingredient)

Terrestrial toxicity:

Acute and subchronic bird toxicity:

No data available (Substances/Ingredient)

Bird reproduction toxicity:

No data available (Substances/Ingredient)

Acute earthworm toxicity:

No data available (Substances/Ingredient)

Chronical earthworm toxicity (reproduction):

No data available (Substances/Ingredient)

Useful insect toxicity:

No data available (Substances/Ingredient)

Acute plant toxicity:

No data available (Substances/Ingredient)

Chronic plant toxicity:

No data available (Substances/Ingredient)

Toxicity to soil macroorganisms except of arthropods:

No data available (Substances/Ingredient)

Effects on soil microorganisms:

No data available (Substances/Ingredient)

Behaviour in waste water treatment plants:

No data available

The product is an alkali. Before discharge into sewage plants the product normally needs to be neutralised.

Observe local regulations concerning effluent treatment.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
10213-79-3	metasilicic acid, disodium salt, pentahydrate					
	Acute fish toxicity	LC50 210 mg/l	96 h	Brachydanio rerio	IUCLID	ISO 7436/1
	Acute algae toxicity	ErC50 207 mg/l	72 h	Scenedesmus subspicatus	ECHA / Supplier	DIN 38412
	Acute crustacea toxicity	EC50 1700 mg/l	48 h	Daphnia magna	ECHA	
107-21-1	ethane-1,2-diol (ethylene glycol)					
	Acute fish toxicity	LC50 72860 mg/l	96 h	Pimephales promelas	Supplier / ECHA	EPA 600/4-90/027
	Acute algae toxicity	ErC50 6500 - 13000 mg/l	96 h	Pseudokirchneriella subcapitata	Supplier / ECHA	EPA 600/9-78-018
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna	Supplier / ECHA	OECD 202
	Fish toxicity	NOEC 15380 mg/l	7 d	Pimephales promelas	Supplier / ECHA	[weight]
	Crustacea toxicity	NOEC 8590 mg/l	7 d	Ceriodaphnia dubia	Supplier / ECHA	EPA 600/4-89/001
	Acute bacteria toxicity	(> 1995 mg/l)	0,5 h	Activated sludge	Supplier / ECHA	ISO 8192
100-51-6	benzyl alcohol					
	Acute fish toxicity	LC50 460 mg/l	96 h	Pimephales promelas	Supplier / ECHA	EPA OPP 72-1
	Acute algae toxicity	ErC50 770 mg/l	72 h	Pseudokirchneriella subcapitata	Supplier / ECHA	OECD 201
	Acute crustacea toxicity	EC50 230 mg/l	48 h	Daphnia magna	Supplier / ECHA	OECD 202
	Algae toxicity	NOEC 310 mg/l	3 d	Pseudokirchneriella subcapitata	Supplier / ECHA	OECD 201
	Crustacea toxicity	NOEC 51 mg/l	21 d	Daphnia magna	Supplier / ECHA	OECD 211
	Acute bacteria toxicity	(2100 mg/l)	3 h	Aerobic heterotrophs	ECHA	ISO 8192 [49h]

12.2. Persistence and degradability

Abiotic degradation:

Physicochemical elimination:

Oxidation:

not applicable (Mixtures)

No data available (Substances/Ingredient)

Hydrolysis:

not applicable (Mixtures)

No data available (Substances/Ingredient)

Photochemical elimination:

Photolysis:

not applicable (Mixtures)

No data available (Substances/Ingredient)

Ozonolysis:

not applicable (Mixtures)

No data available (Substances/Ingredient)

Biodegradation:

not applicable (Mixtures)



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CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
107-21-1	ethane-1,2-diol (ethylene glycol)			
	OECD 301 A (new version)	90-100 %	10	Supplier / ECHA
	readily biodegradable			
100-51-6	benzyl alcohol			
	OECD 301 A	95-97 %	21	Supplier / ECHA
	readily biodegradable			
	OECD 301 C	92-96 %	14	Supplier / ECHA
	readily biodegradable			

12.3. Bioaccumulative potential

not applicable (Mixtures)

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-21-1	ethane-1,2-diol (ethylene glycol)	-1,36
100-51-6	benzyl alcohol	1,05

12.4. Mobility in soil

Surface tension:

See under section 9.1 - Information on basic physical and chemical properties.

Distribution:

Water-air (volatility rate, Henry-constant):

not applicable (Mixtures)

No data available (Substances/Ingredient)

Soil-Water (Adsorption coefficient):

not applicable (Mixtures)

No data available (Substances/Ingredient)

Soil-Air (volatility rate):

not applicable (Mixtures)

No data available (Substances/Ingredient)

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

Endocrine disrupting potential (Environment):

not applicable

12.7. Other adverse effects

Ozone depletion potential (ODP):

No data available (Substances/Ingredient)

Photochemical ozone creation potential (POCP):

No data available (Substances/Ingredient)

Global warming potential (GWP):

No data available (Substances/Ingredient)

Endocrine disrupting potential

No data available

AOX: Product does not contain any organic halogens.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Waste treatment options:

Transfer to an emulsion fission reactor or an emulsion evaporation system, observing official regulations.

Dispose of waste according to applicable legislation.

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Properties of waste which render it hazardous:

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Corrosive

Evidence for disposal must be provided.

Consult the appropriate local waste disposal expert about waste disposal.

Waste for recycling is to be classified and labelled.

For recycling, contact recycling exchanges.

May not be disposed or deposited together with domestic garbage.

Do not mix with other wastes.

Do not flush into surface water or sanitary sewer system.

Do not dispose of waste into sewer.

Before discharge in public drains (e.g. residues of washing- and rinsing liquids) please observe the relevant regulations. In case of further questions please contact your waste- or environmental representative or the responsible authority.

Clean IBCs or drums at approved facility only.

The waste producer is responsible for correct coding and designation of his wastes.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

List of proposed waste codes/waste designations in accordance with EWC:

List of Wastes Code - residues/unused products

120109 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; machining emulsions and solutions free of halogens; hazardous waste

List of Wastes Code - used product

120109 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; machining emulsions and solutions free of halogens; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Other disposal recommendations:

Contaminated packages must be completely emptied and can be re-used following proper cleaning.

Cleaning by recycling company.

Recommended cleansing agent:

Clean with detergents. Avoid solvent cleaners.

Handle contaminated packages in the same way as the substance itself.

Non-contaminated packages may be recycled.

Packing which cannot be properly cleaned must be disposed of.

As well uncleaned (empty) containers remain contaminated by product residues and may be hazardous by vapours. They have to be disposed by specialists or have to be supplied to a licensed reconditioning.

The conditions of the regional reconditioning companies have to be observed.

SECTION 14: Transport information
Land transport (ADR/RID)

14.1. UN number or ID number:	UN3266
14.2. UN proper shipping name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Disodiummetasilicate)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8



Classification code:	C5
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

Other applicable information (land transport)

Provision(s), multilateral agreement(s): Not applicable

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Maximum permissible total quantity per unit of carriage according to subsection 1.1.3.6 ADR/RID: 333 L.
Factor out of category of carriage (= 2) to calculate the quantity per unit of carriage: 3.

Inland waterways transport (ADN)**Other applicable information (inland waterways transport)**

Not classified for this transport carrier.

Marine transport (IMDG)

14.1. UN number or ID number: UN3266
14.2. UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Disodiummetasilicate)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8



Marine pollutant: --
Special Provisions: 274
Limited quantity: 1 L
Excepted quantity: E2
EmS: F-A, S-B
Segregation group: IMDG-Code segregation group 18 - Alkalis

Other applicable information (marine transport)

Exception(s): Not applicable

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN3266
14.2. UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Disodiummetasilicate)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8



Special Provisions: A3 A803
Limited quantity Passenger: 0.5 L
Passenger LQ: Y840
Excepted quantity: E2
IATA-packing instructions - Passenger: 851
IATA-max. quantity - Passenger: 1 L
IATA-packing instructions - Cargo: 855
IATA-max. quantity - Cargo: 30 L

Other applicable information (air transport)

ERG Kodex: 8L

The state variations in chapter 2.8.1 and the operator variations in chapter 2.8.3 for shipping of dangerous goods in limited quantities according to chapter 2.7 of the valid ICAO/IATA Dangerous Goods Regulations have to be observed.

The rulings for dangerous goods by air mail according to chapter 2.4 of the valid ICAO/IATA Dangerous Goods Regulations and the conventions of the Universal Postal Union (UPU) as well as the clauses of the relevant National Postal Administration have to be observed. Airmail: prohibited.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Further information see under section 6, 7, 8.

14.7. Maritime transport in bulk according to IMO instruments

No bulk transport in accordance with IBC code.

It is sold exclusively in traffic legally authorized and appropriate packaging.

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Other applicable information

Postal, express and courier services:

Postal service (national):

Refer to your National Postal Administration.

Express freight / special delivery:

Refer to your National Postal Administration.

Courier service (national):

The general conditions of business of the particular courier service have to be observed.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

2010/75/EU (VOC): 7 % (78 g/l)

Additional information

Authorisations and/or restrictions on use:

Authorisations:

Authorisation of Chemicals (REACH) as regards Annex XIV:

not relevant

Restrictions on use:

Restriction of chemicals (REACH) as regards annex XVII:

not relevant

Other regulations (EU):

Regulation (EC) No. 1005/2009 - Substances that deplete the ozone layer:

not relevant

Regulation (EC) No. 648/2004 and No 907/2006 - Detergents:

In accordance with Regulation (EC) No. 648/2004 and No 907/2006 - Detergents:

Regulation (EC) No. 649/2012 - Export and import of dangerous chemicals:

not relevant

Regulation (EU) 2019/1021 - Persistent organic pollutants:

not relevant

Regulation (EC) No. 428/2009 and No. 388/2012 and No. 1382/2014 - Control of exports, or transfer, brokering and transit of dual-use goods (Dual-Use Regulation):

not relevant

Regulation (EC) No. 273/2004 - Drug precursors:

not relevant

Regulation (EC) No. 111/2005 - Definition of rules for the monitoring of trade in drug precursors between the Union and third countries:

not relevant

Directive 2012/18/EC - Control of major accident hazards involving dangerous substances (Seveso III):

not relevant

Directive 2004/42/EC - Use of organic solvents in certain paints and lacquers:

not relevant

Directive 2010/75/EU - Industrial Emissions Directive (Directive IE) - succession to Directive 1999/13/EC - Limitation of emissions of volatile organic compounds (VOC-Directive):

When using this substance / mixture it has to be checked whether the activities are subject to the requirements of IE-RL, Chapter V (installations and activities with the use of organic solvents - VOC).

Aerosol directive (75/324/EEC):

not relevant

Biocide directive (98/8/EC):

not relevant

Regulation (EU) No. 528/2012 on biocides:

not relevant

Observe in addition any national regulations!

EC-Chemical inventories: All ingredients are listed in EINECS / ELINCS or excepted from listing.

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

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Additional information

Other regulations, restrictions and prohibition regulations:

European product inventories (Registration status on mixtures):

Archivio Preparati Pericolosi - Istituto Superiore di Sanità - ISS (<https://preparatipericolosi.iss.it>):

This product was not registered.

Kemikalieinspektionen / Produktregistret / Swedish Chemicals Inspectorate - Keml (<http://www.kemi.se>):

This product was registered.

Schweizerische Eidgenossenschaft - Bundesamt für Gesundheit - BAG (<http://www.bag.admin.ch>) / Anmeldestelle

Chemikalien (<http://www.cheminfo.ch>) / Informationssystem für gefährliche und umweltrelevante Stoffe - IGS

(<http://igs.naz.ch/index.html>):

This product was registered.

International chemical inventories (Registration status on substances): No data available

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

ethane-1,2-diol (ethylene glycol)

benzyl alcohol

SECTION 16: Other information**Changes**

This version replaces all former issues.

Changes made in this revision see section: 1, 15.

Abbreviations and acronyms

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ATE: Acute Toxicity Estimate.

CAS: Chemical Abstracts Service.

CEN: Comité Européen de Normalisation (European Committee for Standardisation).

CLP: Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008.

CMR: Carcinogen, Mutagen, or Reproductive Toxicant.

CSA: Chemical Safety Assessment.

CSR: Chemical Safety Report.

C&L: Classification & Labeling.

DNEL: Derived No-Effect Level.

DPD: Dangerous Preparations Directive 1999/45/EC.

DSD: Dangerous Substances Directive 67/548/EEC.

DU: Downstream User.

EAK: European Waste Catalogue (replaced by LoW – see below).

EC50: Effective concentration, 50 percent.

ECHA: European Chemicals Agency.

EC: European community.

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EN: European standard.

EWC: European Economic Community.

EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).

EU: European Union.

FDA: US-Food and Drug Administration.

GES: Generic Exposure Scenario.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

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HSPA: Hydrocarbon Solvents Producers Association.
IATA-DGR: International Air Transport Association Dangerous Goods Regulations.
IBC-Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).
IC50 / ErC50: Inhibitory concentration, 50 percent.
ICAO-TI: International Civil Aviation Organization Technical Instruction.
IMDG: International Maritime Dangerous Goods.
IMSBC: International Maritime Solid Bulk Cargoes.
ISO: A standard of International Standards Organisation.
IUCLID: International Uniform Chemical Information Database.
IUPAC: International Union for Pure and Applied Chemistry.
LC50: Lethal concentration, 50 percent.
LD50: Lethal Dose, 50 percent.
LE: Legal Entity.
log Kow (Pow): octanol-water partition coefficient.
LoW: List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>).
LQ: Limited Quantities.
LR: Lead Registrant.
MARPOL: Maritime Pollution Convention (Convention for the Prevention of Pollution from Ships).
OC: Operational Conditions.
OECD: Organisation for Economic Co-operation and Development.
OSHA: Occupational Safety and Health Agency.
PBT: Persistent, bioaccumulabe and toxic.
PEC: Predicted Effect Concentration.
PNEC: Predicted No-Effect Concentration.
PPE: Personal Protection Equipment.
(Q)SAR: Quantitative-Structure-Activity-Relationship.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals; Regulation (EC) No 1907/2006.
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
RMM: Risk Management Measure.
STEL: Short time exposure limit.
SVHC: Substances of Very High Concern.
STOT - RE: Specific Target Organ Toxicity - Repeated Exposure.
STOT - SE: Specific Target Organ Toxicity - Single Exposure.
TWA: Time Weighted Average.
UN: United Nations.
UVCB: Substances of Unknown or Variable composition, Complex reaction products or Biological materials.
vPvB: Very persistent and very bioaccumulable.
WoE: Weight of Evidence.

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Skin Corr. 1B; H314	Calculation method

Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

Further Information

Full text of all R-, H-, EUH-phrases which are referred to in section 2 and 3 of this safety data sheet - see previous list.
These (this) R-, H-, EUH-phrases/R-, H-, EUH-phrase apply/applies to the substance(s) of content, however, it does not necessarily show the classification of the product.

Key literature references and sources for data:

The classification corresponds to current EC-lists, but is completed by statements of technical literature and company data.

Other public accessible sources:

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Regulation (EC) No. 1907/2006 (REACH) in the valid version in each case
Regulation (EC) No. 1272/2008 (CLP) in the valid version in each case

Further information and practical guides on the internet:

European Chemicals Agency - ECHA (<http://echa.europa.eu>)

ECHA - Information on Chemicals (<http://echa.europa.eu/information-on-chemicals>)

ECHA - Candidate List of Substances of Very High Concern for Authorisation
(<http://echa.europa.eu/de/candidate-list-table>)

ECHA - List of restrictions table

(<http://echa.europa.eu/de/addressing-chemicals-of-concern/restrictions/list-of-restrictions/list-of-restrictions-table>)

ECHA - Authorisation List

(<http://echa.europa.eu/hr/addressing-chemicals-of-concern/authorisation/recommendation-for-inclusion-in-the-authorisation-list/authorisation-list>)

ECHA - C&L Inventory (<http://echa.europa.eu/en/web/guest/regulations/clp/cl-inventory>)

eChemPortal (<http://www.echemportal.org>)

The access to European Union law - EUR-Lex (<http://eur-lex.europa.eu>)

Health and Safety Executive (<http://www.hse.gov.uk>) / Control of Substances Hazardous to Health Regulations - COSHH
(<http://www.coshh-essentials.org.uk/Home.asp>)

Pollution Prevention and Control Act and Pollution Prevention and Control Regulations

Recommended restriction of application:

See under section 1.2 - Uses advised against.

Use this product only for intended purpose in accordance with our product informations.

Please refer to our internet website for more information (<http://www.acmos.com>).

Training advice:

Yearly briefing and instruction of employees by means of operating instructions according to article 8 of EC-directive 98/24/EC.

Inquiry office: Laboratory (Division: Occupational- /Product security)

Contact person: Mr. Dryhaus (Telephone: +49-421-5189-0, Telefax: +49-421-5189-871)

Office hours: Mo - Th from 7.30 - 16.15 h and Fr from 7.30 - 13.30 h. Out of office hours no call diversion.

Disclaimer:

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The information contained herein are, to our knowledge at the time of their creation to be correct and been taken from sources deemed to be reliable. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. The receiver of our product is singularly responsible for adhering to existing laws and regulations. All descriptions are approximate values, they are not specified for construction of specifications. This safety data sheet does not represent any operating instruction according to national chemical regulations. It may be used for creation, but must not replace it. The employer is not relieved from his duties. All technical information to occupational protection are directed predominately to experts first (safety engineers, occupational medicines).