

SAFETY DATA SHEET

Solid med klor til alu

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

1.1. Product identifier

Trade name

Solid med klor til alu

Product no.

80080

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

Relevant identified uses of the substance or mixture

Dishwasher detergent

Use descriptors (UK REACH)

Sectors of use	Description
LCS "PW"	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Product category	Description
PC35	Washing and Cleaning Products (including solvent based products)
Process category	Description
PROC1	Use in closed process, no likelihood of exposure
PROC2	Use in closed, continuous process with occasional controlled exposure
Environmental release category	Description
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Jysk Kemi Service A/S

Gl. Struervej 50

7500 Holstebro

Denmark

+45 9740 3133

+45 9740 4846

www.jyskkemi.dk

Contact person

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E-mail

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Revision

27/01/2023

SDS Version

1.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Corr. 1A; H314, Causes severe skin burns and eye damage.

Eye Dam. 1; H318, Causes serious eye damage.

Compiled in accordance with REACH Regulation (EC) No 1907/2006, as retained and amended in UK law

Resp. Sens. 1; H334, May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 STOT SE 3; H335, May cause respiratory irritation.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

Causes severe skin burns and eye damage. (H314)

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (H334)

May cause respiratory irritation. (H335)

Safety statement(s)

General

If medical advice is needed, have product container or label at hand. (P101)

Keep out of reach of children. (P102)

Prevention

Do not breathe dust. (P260)

Wear eye protection/protective gloves/protective clothing. (P280)

Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. (P303+P361+P353)

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

Continue rinsing. (P305+P351+P338)

Storage

Store locked up. (P405)

Disposal

Dispose of contents/container in accordance with local regulation. (P501)

Hazardous substances

disodium metasilicate

sodium hydroxide

tosylchloramide sodium

Additional labelling

Not applicable.

2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
disodium metasilicate	CAS No.: 6834-92-0 EC No.: 229-912-9 UK-REACH: Index No.: 014-010-00-8	25-40%	Skin Corr. 1B, H314 STOT SE 3, H335	
sodium hydroxide	CAS No.: 1310-73-2 EC No.: 215-185-5 UK-REACH: Index No.: 011-002-00-6	5-10%	Skin Corr. 1B, H314 (SCL: 2.00 %) Skin Corr. 1A, H314 Skin Irrit. 2, H315 (SCL: 0.50 %) Eye Irrit. 2, H319 (SCL: 0.50 %)	
tosylchloramide sodium	CAS No.: 7080-50-4 EC No.: 204-854-7 UK-REACH: Index No.: 616-010-00-9	3-5%	EUH031 Acute Tox. 4, H302 Skin Corr. 1B, H314 Resp. Sens. 1, H334	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

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SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

Skin contact

Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment.

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit returning mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable.

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

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact.

Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Some metal oxides

5.3. Advice for firefighters

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Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.
Hazchem Code: None

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Minor spills are collected with a cloth. Collection and disposal of the material shall be done with minimum creation of dust. Sweep and collect. Shall be contained in suitable and tightly closed disposal containers.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Recommended storage material

Keep only in original packaging.

Storage temperature

> 0°C

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

sodium hydroxide

Short term exposure limit (15 minutes) (mg/m³): 2

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

disodium metasilicate

Duration	Route of exposure	DNEL
Long term – Systemic effects - General population	Dermal	740 µg/kgbw/day
Long term – Systemic effects - Workers	Dermal	1.49 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	1.55 mg/m ³
Long term – Systemic effects - Workers	Inhalation	6.22 mg/m ³
Long term – Systemic effects - General population	Oral	740 µg/kgbw/day

sodium hydroxide

Duration	Route of exposure	DNEL
Long term – Local effects - General population	Inhalation	1 mg/m ³

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Long term – Local effects - Workers	Inhalation	1 mg/m ³
Short term – Local effects - Workers	Inhalation	1 mg/m ³

PNEC

disodium metasilicate

Route of exposure	Duration of Exposure	PNEC
Freshwater		7.5 mg/L
Intermittent release (freshwater)		7.5 mg/L
Marine water		1 mg/L
Sewage treatment plant		1 g/L

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and showers are clearly marked.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

8.3. Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

No specific requirements

Skin protection

Recommended	Type/Category	Standards
No special when used as intended.	-	-

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Latex	0,75	> 240	EN374-2, EN374-3, EN388



Eye protection

No specific requirements.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Solid

Colour

White

Odour / Odour threshold

Characteristic

pH

No data available

Density (g/cm³)

1.5

Kinematic viscosity

Not applicable - product is a solid

Particle characteristics

Not applicable - product is a solid

Phase changes

Melting point/Freezing point (°C)

No data available

Softening point/range (waxes and pastes) (°C)

Does not apply to solids.

Boiling point (°C)

Not applicable - product is a solid

Vapour pressure

No data available

Relative vapour density

Does not apply to solids.

Decomposition temperature (°C)

No data available

Data on fire and explosion hazards

Flash point (°C)

No data available

Ignition (°C)

No data available

Auto flammability (°C)

No data available

Lower and upper explosion limit (% v/v)

No data available

Solubility

Solubility in water

Completely soluble

n-octanol/water coefficient

Testing not relevant or not possible due to the nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Evaporation rate (n-butylacetate = 100)

No data available

Other physical and chemical parameters

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

Compiled in accordance with REACH Regulation (EC) No 1907/2006, as retained and amended in UK law

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Product/substance	disodium metasilicate
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	850 mg/L
Other information	

Product/substance	sodium hydroxide
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	325 mg/kg
Other information	

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitisation

Product/substance	sodium hydroxide
Test method	
Species	Rabbit
Result	Adverse effect observed (sensitising)
Other information	

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.

STOT-single exposure

May cause respiratory irritation.

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

Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

Endocrine disrupting properties

None known.

Other information

None known.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	disodium metasilicate
Test method	
Species	Daphnia, Daphnia magna
Compartment	
Duration	48 hours
Test	EC50
Result	496 mg/L
Other information	

Compiled in accordance with REACH Regulation (EC) No 1907/2006, as retained and amended in UK law

Product/substance	disodium metasilicate
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	IC50
Result	15 mg/L
Other information	

Product/substance	disodium metasilicate
Test method	
Species	Fish, Brachydanio rerio
Compartment	
Duration	96 hours
Test	LC50
Result	210 mg/L
Other information	

Product/substance	sodium hydroxide
Test method	
Species	Fish
Compartment	
Duration	7 days
Test	LC50
Result	125 mg/l ·
Other information	

Product/substance	sodium hydroxide
Test method	
Species	Daphnia
Compartment	
Duration	24 hours
Test	EC50
Result	145 mg/l ·
Other information	

Product/substance	sodium hydroxide
Test method	
Species	Crustacean
Compartment	
Duration	15 min
Test	EC50
Result	22 mg/l ·
Other information	

Product/substance	sodium hydroxide
Test method	
Species	Daphnia, Ceriodaphnia dubia
Compartment	
Duration	48 hours
Test	EC50
Result	40,4 mg/L
Other information	

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

Product/substance	sodium hydroxide
Test method	
Potential bioaccumulation	No
LogPow	No data available.
BCF	No data available.
Other information	

12.4. Mobility in soil

No data available.

Compiled in accordance with REACH Regulation (EC) No 1907/2006, as retained and amended in UK law

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

None known.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP 8 - Corrosive

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

Waste group H Waste group H

Specific labelling

Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es) Labels: 8 Classification code: C6	14.4 PG*	14.5 Env**	Other information
ADR	3262	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)	Class: 8 Labels: 8 Classification code: C6	II	No	Limited quantities: 1 kg Tunnel restriction code: 2 (E) See below for additional information.
IMDG	3262	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)	Class: 8 Labels: 8 Classification code: C6	II	No	Limited quantities: 1 kg EmS: F-A S-B See below for additional information.
IATA	3262	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)	Class: 8 Labels: 8 Classification code: C6	II	No	See below for additional information.

* Packing group

** Environmental hazards

Additional information

ADR / See Table A, Section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

Hazchem Code: None

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

People under the age of 18 shall not be exposed to this product.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

Not applicable.

Additional information

Tactile warning.

If this product is sold in retail, it must be delivered with child-resistant fastening.

Sources

The Management of Health and Safety at Work Regulations 1999.

Regulation (EC) No 648/2004 on detergents as retained and amended in UK law.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302, Contact with acids liberates toxic gas.

H302, Harmful if swallowed.

H314, Causes severe skin burns and eye damage.

H315, Causes skin irritation.

H319, Causes serious eye irritation.

H334, May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335, May cause respiratory irritation.

The full text of identified uses as mentioned in section 1

LCS "PW" = Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

PROC1 = Use in closed process, no likelihood of exposure

PROC2 = Use in closed, continuous process with occasional controlled exposure

PC35 = Washing and Cleaning Products (including solvent based products)

ERC4 = Industrial use of processing aids in processes and products, not becoming part of articles

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

Compiled in accordance with REACH Regulation (EC) No 1907/2006, as retained and amended in UK law

IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration 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
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The safety data sheet is validated by

Rikke Hunsbjerg

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en