



MD2

Safety Data Sheet

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Version: 10.15

MD2

F033

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

1.1. Product identifier

Product form : Mixture
Product name : MD2
Product code : F033
Type of product : Technical product

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

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : For professional use only
Use of the substance/mixture : Machine dishwashing products: Detergent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

SELDEN RESEARCH LIMITED

STADEN LANE, BUXTON, DERBYSHIRE, SK17 9RZ, UNITED KINGDOM
Tel: 01298 26226 Fax: 01298 26540 Email: safety@selden.co.uk

1.4. Emergency telephone number

: Mon to Fri 8.30am to 5.00pm - 01298 26226

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin Corr. 1A H314

Full text of hazard classes and H-statements : see section 16

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger
Hazardous ingredients : sodium hydroxide, caustic soda
Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage
Precautionary statements (CLP) : P264 - Wash hands thoroughly after handling
P280 - Wear eye protection, protective gloves
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/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
P405 - Store locked up
P315 - Get immediate medical advice/attention

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

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Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sodium hydroxide, caustic soda	(CAS No) 1310-73-2 (EC no) 215-185-5 (EC index no) 011-002-00-6 (REACH-no) 01-2119457892-27	5 - 15	C; R35	Skin Corr. 1A, H314

Full text of R- and H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Get medical advice/attention if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash with plenty of soap and water. Take off immediately all contaminated clothing and wash it before reuse.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open. Get immediate medical advice/attention.
First-aid measures after ingestion	: Do NOT induce vomiting. Rinse mouth. Drink plenty of water. Get medical advice/attention.

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

Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Burns.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Corrosive vapours.

5.3. Advice for firefighters

No additional information available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Avoid contact with skin and eyes.
Hygiene measures	: Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Does not require any specific or particular technical measures.
Storage conditions	: Keep container closed when not in use.
Incompatible products	: Oxidizing agent. Strong acids.

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Incompatible materials : Metals.
 Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

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

sodium hydroxide, caustic soda (1310-73-2)		
Denmark	Local name	Natriumhydroxid
Denmark	Grænseværdie (langvarig) (mg/m ³)	2 mg/m ³
Denmark	Anmærkninger (DK)	L
Ireland	Local name	Sodium hydroxide
Ireland	OEL (15 min ref) (mg/m ³)	2 mg/m ³
United Kingdom	Local name	Sodium hydroxide
United Kingdom	WEL STEL (mg/m ³)	2 mg/m ³

8.2. Exposure controls

Materials for protective clothing : Not required for normal conditions of use
 Hand protection : Protective gloves
 Eye protection : Safety glasses
 Skin and body protection : Not required for normal conditions of use
 Respiratory protection : Not required for normal conditions of use

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

Physical state : Liquid
 Appearance : Liquid.
 Colour : amber.
 Odour : odourless.
 Odour threshold : No data available
 pH : 13
 Relative evaporation rate (butylacetate=1) : No data available
 Melting point : No data available
 Freezing point : No data available
 Boiling point : No data available
 Flash point : No data available
 Auto-ignition temperature : No data available
 Decomposition temperature : No data available
 Flammability (solid, gas) : No data available
 Vapour pressure : No data available
 Relative vapour density at 20 °C : No data available
 Relative density : 1.13
 Solubility : No data available
 Log Pow : No data available
 Viscosity, kinematic : No data available
 Viscosity, dynamic : No data available
 Explosive properties : No data available
 Oxidising properties : No data available
 Explosive limits : No data available

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9.2. Other information

No additional information available

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

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

metals.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Acute toxicity	: Not classified
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 13
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: 13
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information**12.1. Toxicity**

sodium hydroxide, caustic soda (1310-73-2)	
LC50 fish 1	> 35 mg/l
EC50 other aquatic organisms 1	> 33 mg/l
EC50 other aquatic organisms 2	IC50 algae (72 h) mg/l

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

sodium hydroxide, caustic soda (1310-73-2)	
Log Pow	-3.88

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

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

No additional information available

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SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1824
 UN-No. (IMDG) : 1824
 UN-No. (IATA) : 1824

14.2. UN proper shipping name

Proper Shipping Name (ADR) : SODIUM HYDROXIDE SOLUTION
 Proper Shipping Name (IMDG) : SODIUM HYDROXIDE SOLUTION
 Proper Shipping Name (IATA) : SODIUM HYDROXIDE SOLUTION
 Transport document description (ADR) : UN 1824 SODIUM HYDROXIDE SOLUTION, 8, II, (E)
 Transport document description (IMDG) : UN 1824 SODIUM HYDROXIDE SOLUTION, 8, II

14.3. Transport hazard class(es)**ADR**

Transport hazard class(es) (ADR) : 8
 Danger labels (ADR) : 8

**IMDG**

Transport hazard class(es) (IMDG) : 8
 Danger labels (IMDG) : 8

**IATA**

Transport hazard class(es) (IATA) : 8
 Hazard labels (IATA) : 8

**14.4. Packing group**

Packing group (ADR) : II
 Packing group (IMDG) : II
 Packing group (IATA) : II

14.5. Environmental hazards

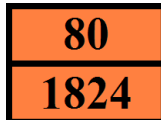
Dangerous for the environment : No
 Marine pollutant : No
 Other information : No supplementary information available

14.6. Special precautions for user**- Overland transport**

Classification code (ADR) : C5
 Limited quantities (ADR) : 1I

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Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P001, IBC02
Mixed packing provisions (ADR)	: MP15
Portable tank and bulk container instructions (ADR)	: T7
Portable tank and bulk container special provisions (ADR)	: TP2
Tank code (ADR)	: L4BN
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Hazard identification number (Kemler No.)	: 80
Orange plates	:



Tunnel restriction code (ADR)	: E
EAC code	: 2R

- Transport by sea

Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T7
Tank special provisions (IMDG)	: TP2
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: A

- Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A3
ERG code (IATA)	: 8L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IBC code	: Not applicable.
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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations**

Contains no REACH substances with Annex XVII restrictions
 Contains no substance on the REACH candidate list
 Contains no REACH Annex XIV substances

15.1.2. National regulations**Germany**

VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

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SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: None of the components are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Skin Corr. 1A	Skin corrosion/irritation, Category 1A
H314	Causes severe skin burns and eye damage

SDS EU (EXPORT PREPARE)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product