SAFETY DATA SHEET MOULD & MILDEW REMOVER

According to Regulation (EC) No. 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures.

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

1.1. Product identifier

Product name MOULD & MILDEW REMOVER

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

Identified uses Hard surface cleaner. For professional use only.

Uses advised against Not for direct contact with Food or Beverage stuffs. Not for oral consumption. Use of this

product for cleaning by hand is not recommended. Must not be used where acid based

chemicals are present.

1.3. Details of the supplier of the safety data sheet

Supplier MERLIN CHEMICALS

UNIT 5, PASSFIELD MILL INDUSTRIAL PARK, LIPHOOK, HAMPSHIRE, GU30 7RR

+44 (0) 1428 751122 +44 (0) 1428 751133

technical@merlinchemicals .co.uk

1.4. Emergency telephone number

Emergency telephone Out of Office Hours Emergency Information:-

For accidents and spillages involving this product that pose a threat to the environment, or

human health, or require immediate first aid advice call:- +44(0) 7050 265597.

Note:- This number will not accept order queries or calls dealing with equipment breakdowns.

UK Environment Agency 24hour Advisory Service 0800 807060. Irish Environmental

Protection Agency 1890 335599.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified

Health hazards Skin Corr. 1B - H314

Environmental hazards Aquatic Acute 1 - H400

2.2. Label elements

Pictogram





Signal word Danger

Hazard statements H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

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Precautionary statements P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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.

P313 Get medical advice/attention.

P501 Dispose of contents/container in accordance with national regulations.

Supplemental label information

EUH031 Contact with acids liberates toxic gas.

Contains SODIUM HYPOCHLORITE SOLUTION 15% CI ACTIVE

Detergent labelling 15 - < 30% chlorine-based bleaching agents, < 5% non-ionic surfactants

Supplementary precautionary

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

statements P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P405 Store locked up.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SODIUM HYPOCHLORITE SOLUTION 15% CI ACTIVE

10-30%

CAS number: 7681-52-9 EC number: 231-668-3 REACH registration number: 01-

2119488154-34

M factor (Acute) = 10

Classification Classification (67/548/EEC or 1999/45/EC)

Skin Corr. 1B - H314 C;R34. Xi;R37. N;R50. R31.

STOT SE 3 - H335 Aquatic Acute 1 - H400

ALKYL DIMETHYL AMINE OXIDE

<1%

CAS number: 308062-28-4 EC number: 931-292-6 REACH registration number: 01-

2119490061-47

M factor (Acute) = 1

Classification Classification (67/548/EEC or 1999/45/EC)

Acute Tox. 4 - H302 Xn; R22. Xi; R38, R41. N; R50/53

Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

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SODIUM HYDROXIDE <1%

CAS number: 1310-73-2 EC number: 215-185-5 REACH registration number: 01-

2119457892-27

Classification Classification (67/548/EEC or 1999/45/EC)

Met. Corr. 1 - H290 C;R35

Skin Corr. 1A - H314 Eye Dam. 1 - H318

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments To the best of our knowledge, all of the substances used in this product are being supported

for the relevent application in REACH.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information When it is safe to do so, remove victim immediately from source of exposure. However,

consideration should be given as to whether moving the victim will cause further injury.

Inhalation Remove affected person from source of contamination. Provide rest, warmth and fresh air. If

breathing stops, provide artificial respiration. Get medical attention if any discomfort

continues.

Ingestion Do not induce vomiting. Rinse mouth thoroughly. Place unconscious person on their side in

the recovery position and ensure breathing can take place. Get medical attention.

Skin contact Remove contaminated clothing that is not stuck to the skin. Flush area with clean water.

Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Eye contact Remove any contact lenses and open eyelids wide apart. Promptly wash eyes with plenty of

water while lifting the eyelids. Continue to rinse for at least 15 minutes and get medical

attention.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

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

General information Neat product may cause chemical burns and permanent eye damage. Dilute product may

cause irritation to the skin and eyes.

Inhalation This product is corrosive. Inhalation of neat product is unlikely. However, inhalation of

vapours from hot surfaces, or sprayed droplets may result in severe burns to the mouth, nose, GI tract and airways. If mixed with acid, chlorine gas can be evolved resulting in stinging sensation in eyes and difficulty in breathing. There may be burning to nose, mouth and

respiratory system.

Ingestion Unlikely route of exposure without deliberate abuse. If neat chemical is ingested, chemical

burning of mouth, throat and GI tract will occur. If dilute chemical is ingested, soreness of

mouth, throat and GI tract may occur together with redness and blistering.

Skin contact Causes severe burns.

Eye contact May result in permanent eye damage.

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

Notes for the doctor Rinse well with water to neutral pH. If mixed with acidic material will produce Chlorine Gas,

check for respiratory disorders.

SECTION 5: Firefighting measures

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5.1. Extinguishing media

Suitable extinguishing media This product will not support combustion and is not flammable. Use an extinguishing media

suitable for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Specific hazards This product is not combustible, but hot solutions will give off acrid corrosive vapour. Contact

with acids may generate Toxic Chlorine Gas.

5.3. Advice for firefighters

Protective actions during

firefighting

Protective clothing and respiratory protection should be worn when tackling fires involving this product. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment

for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective

clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions

Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if possible without risk. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections

See sections 8.12 & 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Refer to section 8.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place. Store away from the following materials: Acids. Store between 0 and 30 Degrees C.

7.3. Specific end use(s)

Specific end use(s)

Hard surface cleaner. Refer to Product Information Sheet.

Usage description

This product is suitable for use in food preparation areas, but is not designed for direct food

contact.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

SODIUM HYDROXIDE

Short-term exposure limit (15-minute): WEL 2 mg/m³

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WEL = Workplace Exposure Limit

Ingredient comments

As a requirement of REACH we have considered all of the components of this formulation. We believe that Sodium Hydroxide (NaOH) is the most hazardous component of this formulation. Sodium Hydroxide is not expected to be systemically available to the body under normal handling and use conditions, therefore systemic effects of Sodium Hydroxide after Dermal or Inhalation Exposure are not expected to occur. Based on data from our raw material suppliers, we understand that if the risk management measures outlined in section 8.2 are followed, the inhalation exposure is below the DNEL of 1mg/m3. Where an exposure level is quoted, a risk assessment should consider if there is a need to monitor the atmosphere of the working environment. Results should be compared against the WEL and/or DNEL information provided. The Long Term WEL refers to total exposure of a worker to a specific substance averaged out over an 8 hour period.

The Short Term WEL refers to a single exposure of a worker to a specific substance over a 15 minute period.

If the Short Term WEL is exceeded and no Long Term Limit is set, further exposure during the working shift is not permitted. Further controls should be implemented to ensure that future exposure to the substance is reduced below the levels set before the activity is repeated/continued. Where no Short Term WEL exists, guidance from the HSE is to use a value of three times the Long Term WEL.

The WEL limits are laid down in the EH40 list as supplied by the HSE. This is taken from the Chemical Agents Directive (98/24/EC). Where a worker is exposed to levels approaching a limit, further exposure control measures should be considered to reduce exposure to the substance. DNEL and/or PNEC information is supplied by manufacturers of substances in accordance with REACH legislation (Regulation (EC) No 1907/2006), and is used to provide suitable risk reduction measures to limit exposure of the user of the substance to a non hazardous level. If the measured level of exposure by a route divided by the DNEL for the route is greater than 1, then further exposure controls should be implemented as described in section 8.2. Where new information becomes available under REACH, this will be passed on as revisions to the Safety Data Sheet.

SODIUM HYPOCHLORITE SOLUTION 15% CI ACTIVE (CAS: 7681-52-9)

DNEL Industry - Dermal; Long term local effects: 0.5%W/W

Industry - Inhalation; Short term local effects: 3.1 mg/m³ Industry - Inhalation; Long term local effects: 1.55 mg/m³ Industry - Inhalation; Short term systemic effects: 3.1 mg/m³ Industry - Inhalation; Long term systemic effects: 1.55 mg/m³

PNEC - Sediment (Marinewater); 0.042 ug/l

- Sediment (Freshwater); 0.21 ug/l

- Fresh water; 30 ug/l

- Intermittent release; 0.26 ug/l

ALKYL DIMETHYL AMINE OXIDE (CAS: 308062-28-4)

DNEL Professional - Dermal; Long term systemic effects: 11 mg/kg/day

Professional - Inhalation; Long term systemic effects: 15.5 mg/m3 8h

Professional - Dermal; Long term local effects: 0.27 %

General population - Dermal; Long term systemic effects: 5.5 mg/kg/day General population - Inhalation; Long term systemic effects: 3.8 mg/m³ General population - Oral; Long term systemic effects: 0.44 mg/kg/day

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PNEC - Fresh water; 0.0335 mg/l

Marine water; 0.00335 mg/l
Intermittent release; 0.0335 mg/l
Sediment (Freshwater); 1.02 mg/kg
Sediment (Marinewater); 24 mg/kg

Soil; 1.02 mg/kgSTP; 24 mg/kg

SODIUM HYDROXIDE (CAS: 1310-73-2)

DNEL Industry - Inhalation; Long term local effects: 1.0 mg/m³

DNEL data for Professional users is not yet available, but it is assumed to be the

same as for Industrial users.

Industry - Dermal; Short term local effects: 2%

PNEC No information is available for PNEC data for Sodium Hydroxide

8.2. Exposure controls

Protective equipment









Appropriate engineering controls

Provide sufficient ventilation during operations which cause vapour formation.

Personal protection

The PPE indicated above is not a COSHH assessment. It represents PPE that should be considered during the manufacture, distribution, use and final disposal stages of this product's life cycle. It is the responsibility of employers to conduct a COSHH/risk assessment to determine appropriate PPE levels. The information given below should be used to support this assessment. Where possible replace manual processes with automated or closed processes to minimise contact with the product.

Eye/face protection

Wear full-face visor or shield. Refer to EN Standard 166 to select appropriate level of protection.

Hand protection

Impervious Chemical Resistant Gloves of Butyl Rubber, PVC, Polychloroprene with a natural latex liner, all with a minimum material thickness 0.5mm and a breakthrough time of >480mins. Alternatively Nitrile Rubber, Fluorinated Rubber, both with a minimum thickness of 0.35 - 0.4mm and a breakthrough time of >480minutes. Refer to Standard EN 374.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible. Reference to EN 13832 and EN 943 is useful when selecting footwear and clothing.

Hygiene measures

Promptly remove non-impervious clothing that has become contaminated, provided it is not adhered to the skin. Contaminated clothing and shoes must be discarded. Provide eyewash station and safety shower.

Respiratory protection

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Workplace Exposure Limit.

Environmental exposure controls

Do not allow the substance to contaminate surface water/ground water. See points 6, 12 &13.

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General Health and Safety Measures.

The above requirements refer to the neat chemical. In-use solutions may have a lower classification, however, a full risk assessment should be carried out before handling any chemical(s). Risk assessments should refer to COSHH and any other relevant legislation or industry specific guidelines governing the use of chemicals.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Liquid

Colour Colourless.

Odour Characteristic.

Odour threshold Not applicable.

pH (concentrated solution): 12 - 13

Melting point Not applicable.

Initial boiling point and range Not applicable.

Flash point Not applicable.

Evaporation rate Not applicable.

Evaporation factor Not applicable.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or

explosive limits

Not applicable.

Vapour pressure Not applicable.

Vapour density Not applicable.

Relative density 1.01 - 1.04

Bulk density Not applicable.

Solubility(ies) Soluble in water.

Partition coefficient Not applicable.

Auto-ignition temperature Not applicable.

Decomposition Temperature Not applicable.

Viscosity Not determined.

Explosive properties Not applicable.

Explosive under the influence

of a flame

Not considered to be explosive.

Oxidising properties Does not meet the criteria for classification as oxidising.

9.2. Other information

Refractive index Not applicable.

Particle size Not applicable.

Molecular weight Not applicable.

Volatility Not applicable.

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Saturation concentration Not applicable.

Critical temperature Not applicable.

Volatile organic compound Not applicable.

Explosive Properties Not Classified as Explosive

Storage Temperature Range 0 to +30 Degrees C

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Not expected to react when correctly stored and used. Mixing with other chemicals may

produce unexpected reactions. The solution is strongly alkaline and reacts with strong acids

with heat generation. Will produce toxic Chlorine gas in contact with acids.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. - See note 10.6.

Decomposes over time to produce Oxygen and Sodium Chloride.

10.3. Possibility of hazardous reactions

Possibility of hazardous

reactions

Refer to section 10.1. Do not mix with acids, this will generate heat and give off corrosive

vapours.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition

No specific hazardous decomposition products noted. - See section 10.5.

products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 37,333.3333333

General information Toxic effect linked with corrosive properties. See section 4.2.

Inhalation Inhalation of sprayed droplets or vapours from hot surfaces may result in severe burns to the

mouth, nose, GI tract and airways. - See section 4.2.

Ingestion Causes severe burns. May cause chemical burns in mouth, oesophagus and stomach.

Skin contact Causes severe burns.

Eye contact Risk of serious damage to eyes. May cause permanent eye injury.

SECTION 12: Ecological Information

Ecotoxicity Very toxic to aquatic life.

12.1. Toxicity

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Acute toxicity - fish Note:- pH values greater than 10.5 may be fatal to fish and other aquatic organisms, there

may also be damage to aquatic plants.

Normal use of the diluted product is not expected to pose any risk.

See note 12.0

12.2. Persistence and degradability

Persistence and degradability This product consists mainly of inorganic components for which biodegradation assessment is

not applicable. The product meets the requirements of the European Detergents Regulation

648/2004 as amended.

12.3. Bioaccumulative potential

Bioaccumulative potential Not expected to bioaccumulate.

Partition coefficient Not applicable.

12.4. Mobility in soil

Mobility The product contains substances which are water-soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB

assessment

This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be

considered. Do not mix with other chemicals. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental

protection and waste disposal legislation and any local authority requirements.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3266

UN No. (IMDG) 3266

UN No. (ICAO) 3266

UN No. (ADN) 3266

14.2. UN proper shipping name

Proper shipping name

CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.

(ADR/RID)

Proper shipping name

CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.

(IMDG)

Proper shipping name (ICAO) CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.

Proper shipping name (ADN) CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C5

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ADR/RID label 8
IMDG class 8
ICAO class/division 8
ADN class 8

Transport labels



14.4. Packing group

ADR/RID packing group II
IMDG packing group II
ADN packing group II
ICAO packing group II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-A, S-B

ADR transport category 2
Emergency Action Code 2X
Hazard Identification Number 80

(ADR/RID)

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: Regulatory information

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

EU legislation European Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of

Substances and Mixtures.

This replaces Directive 67/548/EEC - Classification, Packaging and Labelling of Dangerous Substances and Regulation (EC) No. 453/2010 relating to the Classification, Packaging and Labelling of Dangerous Preparations. Also considered is the REACH Regulation (EC)

No.1907/2006.

15.2. Chemical safety assessment

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet

(EC) No. 1272/2008: EU Regulation on Classification, Labelling and Packaging of

Substances and Mixtures.

COSHH - Control of Substances Hazardous to Health.

DNEL - Derived No Effect Limit.

Industry - Refers in section 8 to application of the substance in an industrial process.

NPIS - National Poisons Information Service. PBT - Persistent, Bioaccumulative & Toxic.

Professional - Refers in section 8 to application/use of the preparation/product in a skilled

trade premises.

REACH - Registration, Evaluation, Authorisation & restriction of CHemicals (Regulation EC

1907/2006).

vPvB - Very Persistent, Very bioaccumulative.

General information Only trained personnel should use this material. This document is a Safety Data Sheet, NOT

a CoSHH assessment. It is the customer's responsibility to conduct a full CoSHH

assessment, taking into account the information held within this document along with other local factors considered in a risk assessment. The Risk and Hazard statements listed below are the full text of abbreviations used in this document. They are not the final classification,

for this refer to section 2.

Revision comments Review in line with CLP Regulation.

Revision date 01/05/2015

SDS number 20970

Hazard statements in full H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage. H335 May cause respiratory irritation. H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

REACH extended MSDS

comments

REACH requires that persons handling chemicals should take the necessary risk management measures, in accordance with assessments from manufacturers and importers of chemical substances. The relevent recommendations must be passed along the supply

chain. These assessments are generally reported in Exposure Scenarios.

Where Exposure Scenarios have been provided for substances used in this product, the

relevent information is incorporated into the safety data sheet.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.