

SAFETY DATA SHEET

according to Regulation (EU) No. 1907/2006

TWO IN ONE

Version TCS1.0-MK1.0 Revision Date Print Date 24.08.2009 GB / EN
24.08.2009

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Commercial Product Name : TWO IN ONE
Company : **MKN Maschinenfabrik Kurt Neubauer GmbH & Co.**
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Use

Specific use(s) : Two-component cleaning agent for industrial plants

2. HAZARDS IDENTIFICATION

Risk advice to man and the environment



Symbol(s) : C Corrosive

R-phrase(s) : R35 Causes severe burns.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No. / Registration number	Classification	Concentration[%]
sodium hydroxide; caustic soda	1310-73-2	215-185-5	C; R35	55 - < 60
Citric acid	77-92-9	201-069-1	Xi; R36	20 - < 25
wax LBO 45			Xi; R41	7 - < 10
Sulfuric acid, mono-C12-18-alkyl esters, sodium salts	68955-19-1	273-257-1	Xi; R38 - R41	1,5 - < 2

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4. FIRST AID MEASURES

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Take off all contaminated clothing immediately.
- Inhalation : Remove to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.
- Skin contact : Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
- Eye contact : Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
- Ingestion : If swallowed, seek medical advice immediately and show this container or label. If a person vomits when lying on his back, place him in the recovery position. Do NOT induce vomiting.

Notes to physician

- Risks : corrosive effects

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Extinguishing media which shall not be used for safety reasons : High volume water jet
- Specific hazards during fire fighting : Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products formed under fire conditions. Build-up of dangerous/toxic fumes possible in cases of fire/high temperature
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.

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Further information : Standard procedure for chemical fires.
Exposure to decomposition products may be a hazard to health.
Use extinguishing measures that are appropriate to local
circumstances and the surrounding environment.
Fire residues and contaminated fire extinguishing water must be
disposed of in accordance with local regulations.
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear personal protective equipment.
Avoid contact with skin, eyes and clothing.
Ventilate the area.
Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Should not be released into the environment.
Avoid subsoil penetration.
If the product contaminates rivers and lakes or drains inform
respective authorities.

Methods for cleaning up : Contain and collect spillage with non-combustible absorbent material,
(e.g. sand, earth, diatomaceous earth, vermiculite) and place in
container for disposal according to local / national regulations.

7. HANDLING AND STORAGE

Handling

Advice on safe handling : Avoid contact with skin and eyes.
Do not breathe vapours or spray mist.
For personal protection see section 8.

Advice on protection against
fire and explosion : Normal measures for preventive fire protection.

Dust explosion class : not applicable

Storage

Requirements for storage
areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place.
Store at room temperature in the original container.

Advice on common storage : Keep away from food, drink and animal feedingstuffs.

Remarks : No decomposition if stored and applied as directed.
Keep in a dry place.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Type	Control parameters	Note	Basis	Update
sodium hydroxide; caustic soda	1310-73-2	STEL	2 mg/m3		EH40 WEL	2005

Engineering measures

General advice : Provide adequate ventilation.

Personal protective equipment

Respiratory protection : Respirator with a dust filter

Hand protection

Directive : DIN EN 374

Material : Latex gloves

Rate of permeability : > 480 min

Protective index : Class 6

Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work.

For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

Eye protection : Tightly fitting safety goggles

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Skin and body protection : impervious clothing

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
General industrial hygiene practice.
When using do not eat, drink or smoke.
Avoid contact with skin, eyes and clothing.
Wash hands before breaks and at the end of workday.
Wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : powder

Colour : white

Odour : characteristic

Safety data

pH : 13,0
at 1 g/l

pH : 2,0
at 1 g/l

Flash point : not applicable

Bulk density : 1.200 kg/m³

Water solubility : soluble

10. STABILITY AND REACTIVITY

Conditions to avoid : Avoid moisture.

Materials to avoid : Metals

Hazardous decomposition products : Build-up of dangerous/toxic fumes possible in cases of fire/high temperature

Thermal decomposition : No decomposition if used as directed.

11. TOXICOLOGICAL INFORMATION

Skin irritation : Extremely corrosive and destructive to tissue.

Eye irritation : Extremely corrosive and destructive to tissue.

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May cause irreversible eye damage.
Strong lachrymation can make it difficult to escape

Further information : Ingestion of aqueous solution causes gastrointestinal burns.

Components:

sodium hydroxide; caustic soda	1310-73-2	<u>Acute oral toxicity</u> : Swallowing small quantities can be considerably detrimental to health. <u>Acute dermal toxicity</u> : LD50 rat Dose: 1.350 mg/kg <u>Skin irritation</u> : Classification: Causes burns. Result: Extremely corrosive and destructive to tissue. <u>Eye irritation</u> : Classification: Causes burns. Result: Blindness
Citric acid	77-92-9	<u>Acute oral toxicity</u> : LD50 rat Dose: 3.000 mg/kg <u>Skin irritation</u> : Classification: Irritating to skin. Result: Mild skin irritation <u>Eye irritation</u> : Classification: Irritating to eyes. Result: Risk of serious damage to eyes.
Sulfuric acid, mono-C12-18-alkyl esters, sodium salts	68955-19-1	<u>Acute oral toxicity</u> : no data available <u>Skin irritation</u> : Classification: Irritating to skin. Result: Skin irritation <u>Eye irritation</u> : Classification: Irritating to eyes. Result: Risk of serious damage to eyes.

12. ECOLOGICAL INFORMATION

Further information on ecology

Other ecotoxicological advice : The product should not be allowed to enter drains, water courses or the soil.
Neutralization is normally necessary before waste water is discharged into water treatment plants.

Components:

sodium hydroxide; caustic soda	1310-73-2	<u>Toxicity to fish</u> : LC50 Species: Oncorhynchus mykiss (rainbow trout) Dose: 45,4 mg/l Exposure time: 96 h <u>Acute and prolonged toxicity for aquatic invertebrates</u> : EC50 Species: Daphnia magna (Water flea) Dose: 76 mg/l Exposure time: 24 h
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Citric acid

77-92-9

Toxicity to fish:

LC50

Species: Leuciscus idus (Golden orfe)

Dose: 440 - 760 mg/l

Exposure time: 96 h

Acute and prolonged toxicity for aquatic invertebrates:

EC50

Species: Daphnia magna (Water flea)

Dose: ca. 120 mg/l

Exposure time: 72 h

13. DISPOSAL CONSIDERATIONS

Advice on disposal and packaging : Disposal:
In accordance with local and national regulations.

EU Waste code: EWC : Waste Key (unused product) :
070608, other still bottoms and reaction residues

Waste key (used product) :
070608, other still bottoms and reaction residues

14. TRANSPORT INFORMATION

Land transport

ADR

UN Number : 1823
Description of the goods : SODIUM HYDROXIDE, SOLID
Class : 8
Packaging group : II
Classification Code : C6
Hazard identification No : 80
ADR/RID-Labels : 8

RID

UN Number : 1823
Description of the goods : SODIUM HYDROXIDE, SOLID
Class : 8
Packaging group : II
Classification Code : C6
Hazard identification No : 80
ADR/RID-Labels : 8

Air transport

IATA

UN Number : 1823
Proper technical name : Sodium hydroxide, solid
Class : 8
Packaging group : II

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ICAO-Labels : 8
Packing instruction (cargo aircraft) : 816
Packing instruction (passenger aircraft) : 814
Packing instruction (passenger aircraft) : Y814

Sea transport

IMDG

Substance No. : UN 1823
Proper technical name : SODIUM HYDROXIDE, SOLID
Class : 8
Packaging group : II
IMDG-Labels : 8
EmS Number : F-A S-B
Marine pollutant : no

15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazardous components which must be listed on the label:

- 1310-73-2 sodium hydroxide; caustic soda

Symbol(s) : C Corrosive



R-phrases : R35 Causes severe burns.

S-phrases : S22 Do not breathe dust.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60 This material and/or its container must be disposed of as hazardous waste.

