

# Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



## 64050 Sodium Hydroxide

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Revised edition: 17.04.2020

Version: 208

Printed: 08.10.2021

### 1. Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1. Product Identifier

Product Name: Sodium Hydroxide

Article No.: 64050

UFI: --

#### 1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses: Basic chemical without special defined application.

Uses advised against:

#### 1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

Company: Kremer Pigmente GmbH & Co. KG

Address: Hauptstr. 41-47, 88317 Aichstetten, Germany

Tel./Fax.: Tel +49 7565 914480, Fax +49 7565 1606

Internet: www.kremer-pigmente.com

E-Mail: info@kremer-pigmente.com

Importer: --

#### 1.4. Emergency No.

Emergency No.: +49 7565 914480 (Mon-Fri 8:00 - 17:00)

#### 1.4.2 Poison Center:

### 2. Hazards Identification

#### 2.1. Classification of the Substance or Mixture

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

Corrosive to metals, hazard category 1  
Skin corrosion, hazard category 1A  
Serious eye damage, hazard category 1  
May be corrosive to metals.

H290  
Cat.: 1  
H314  
Cat.: 1A

Causes severe skin burns and eye damage.

Possible Environmental Effects:

#### 2.2. Label Elements

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

Hazard designation:



GHS05-2

Signal word:

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### Danger

#### Hazard designation:

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

#### Safety designation:

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/ clothing/ eye/ face 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/shower.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing.
P310	Immediately call a poison center or physician.

#### Hazardous components for labelling:

### 2. 3. Other Hazards

## 3. Composition/Information on Ingredients

### 3. 1. Substance

### 3. 2. Mixture

#### Chemical Characterization:

#### Information on Components / Hazardous Ingredients:

Sodium hydroxide (H290-314-318); REACH Reg. No. 01-2119457892-27	100 %	CAS-Nr: 1310-73-2 EINECS-Nr: 215-185-5 EC-Nr: 011-002-00-6
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#### Additional information:

## 4. First Aid Measures

### 4. 1. Description of the First Aid Measures

#### General information:

Remove contaminated clothes immediately.

#### After inhalation:

Supply fresh air.

In case of complaints consult a physician.

#### After skin contact:

Wash off with plenty of water and soap.

If possible, wash also with polyethylene glycol 400.

Immediate medical treatment necessary. Caustic burns can cause wounds which do not easily heal.

#### After eye contact:

Rinse open eyes with plenty of water for at least 15 minutes.

Immediately call an ophthalmologist.

#### After ingestion:

Do not induce vomiting.

Rinse mouth with water and drink plenty of water.

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*Immediately get medical help.*

### 4. 2. Most important Symptoms and Effects, both Acute and Delayed

*Symptoms:*

*Effects:*

*Danger of perforation of esophagus and stomach.*

### 4. 3. Indication of any Immediate Medical Attention and special Treatment needed

*Treatment:*

*No further information available.*

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## 5. Fire-Fighting Measures

### 5. 1. Extinguishing Media

*Suitable extinguishing media:*

*Product itself does not burn.*

*Use extinguishing media for surrounding fire.*

*Unsuitable extinguishing media:*

*Water with full jet.*

### 5. 2. Special Hazards arising from the Substance or Mixture

*Special hazards:*

*Reacts in aqueous solution with aluminium, zinc, tin and its alloys: development of hydrogen gas which can form an explosive mixture with air.*

*Reacts violently with water.*

### 5. 3. Advice for Firefighters

*Protective equipment:*

*Wear suitable protective clothing.*

*Wear self-contained respiratory protective device.*

*Further information:*

*Collect contaminated extinguishing water and debris separately; avoid contamination of sewage system.*

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## 6. Accidental Release Measures

### 6. 1. Personal Precautions, Protective Equipment and Emergency Procedures

*Personal precautions:*

*Avoid formation of dust, wear protective clothing. Keep spectators away.*

*Ensure adequate ventilation.*

*Avoid formation of dust.*

*Together with water product causes slippery surfaces.*

### 6. 2. Environmental Precautions

*Environmental precautions:*

*Use water spray when very dusty.*

*Prevent contamination of soil, drains and surface waters.*

*Contact local authorities if product pollutes soil or vegetation.*

### 6. 3. Methods and Material for Containment and Cleaning Up

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### *Methods and material:*

*Take up mechanically and collect in suitable containers for disposal. Avoid dust formation.*

*Rinse with lots of water.*

### 6. 4. Reference to other Sections

*For information for safe handling see Section 7.*

*Protective clothing, see Section 8.*

*Dispose of contaminated material according to Section 13.*

---

## 7. Handling and Storage

### 7. 1. Precautions for Safe Handling

#### *Instructions on safe handling:*

*Provide adequate ventilation.*

*Respiratory protection when handling without exhaust system.*

*When diluting: always pour the product into the water. Never pour in water into the product.*

#### *Hygienic measures:*

*Avoid contact with eyes and skin.*

*Keep away from foodstuffs and drinks.*

### 7. 2. Conditions for Safe Storage, including any Incompatibilities

#### *Storage conditions:*

*Store in tightly sealed containers in a dry room.*

*Product is hygroscopic.*

#### *Requirements for storage areas and containers:*

*Observe official regulations on storage and handling of water hazardous substances.*

*Unsuitable container material: light metal.*

#### *Information on fire and explosion protection:*

*Product is not combustible.*

*Do not store together with: acids.*

#### *Storage class:*

*8 B; Non-combustible corrosive substances (TRGS 510, Storage of hazardous materials in transportable containers)*

#### *Further Information:*

*Do not store together with: foodstuffs, beverages and feed.*

### 7. 3. Specific End Use(s)

#### *Further information:*

*No information available.*

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## 8. Exposure Controls/Personal Protection

### 8. 1. Parameters to be Controlled

#### *Parameters to be controlled (DE):*

*TLV: 1.5 mg/m<sup>3</sup> air-borne fraction (general dust limit)*

*TLV: 10 mg/m<sup>3</sup> inhalable fraction (general dust limit)*

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### *Parameters to be controlled:*

#### *Derived No-Effect Level (DNEL):*

*Sodium hydroxide (1310-73-2):*

*2.3 mg/kg bw/d (worker, swallowing, long-term exposure - systemic)*

*< 2 % wt. (worker, skin contact, short-term exposure - local)*

*2.1 mg/m<sup>3</sup> (worker, inhalation, long-term exposure - systemic)*

*1 mg/m<sup>3</sup> (worker, inhalation, long-term exposure - local)*

*2.5 mg/m<sup>3</sup> (Consumer, inhalation, short-term exposure - local)*

*5.7 mg/m<sup>3</sup> (Consumer, inhalation, long-term exposure - systemic)*

#### *Predicted No-Effect Concentration (PNEC):*

*Fresh water: 6.4 mg/l*

*Sea water: 0,64 mg/l*

*Fresh water sediment: 23 mg/kg dw*

*Sea water sediment: 2.3 mg/kg dw*

*Soil: 0.853 mg/kg dw*

*Sewage treatment system (STP): 51 mg/l*

*Intermittent release: 3.1 mg/l*

### *Additional Information:*

#### **8.2. Exposure Controls**

##### *Technical protective measures:*

*Provide adequate ventilation/exhaust system.*

##### *Personal Protection*

##### *General protective measures:*

*Remove contaminated clothing immediately.*

*Avoid contact with skin, eyes and clothing.*

*Do not inhale dust.*

*Wash hands before breaks and after work.*

*Keep away from foodstuffs, beverages and feed.*

##### *Respiratory protection:*

*Respirator mask required if ventilation is insufficient. Wear filter respirator in case of short-term or low exposure, and wear a self-contained breathing apparatus in case of long-term or higher exposure.*

*Respiratory equipment required in case of insufficient ventilation, filter type P2.*

##### *Hand protection:*

*Chemical protective gloves (EN 374 (Europe), F739 (US)).*

##### *Protective glove material:*

*Butyl rubber (> 480 min; 0.5 mm).*

*Polyvinyl chloride (> 480 min, 0.5 mm)*

*Nitrile rubber (> 480 min, 0.35 mm)*

*Chloroprene rubber (> 480 min, 0.5 mm)*

*Fluoro carbon rubber - FKM (> 480 min; 0.4 mm).*

*Suitability and durability of a glove is dependent on usage, e.g. next page:*

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*frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers.*

*Eye protection:*

*Tightly fitting safety goggles (EN 166).*

*Body protection:*

*Protective clothing.*

*Chemical resistant safety shoes.*

*Environmental precautions:*

*Prevent from getting into the soil, surface water and sewage system.*

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## 9. Physical and Chemical Properties

### 9.1. Information on Basic Physical and Chemical Properties

*Form:* *solid*

*Color:* *white*

*Odor:* *odorless*

*Odor threshold:*

*no information available*

*pH-Value:* *> 14 (100 g/l; 20°C)*

*Melting temperature:* *323°C*

*Boiling temperature:* *1390°C*

*Flash point:*

*not combustible*

*Evaporation rate:*

*No information available.*

*Flammability (solid, gas):*

*not flammable*

*Upper explosion limit:*

*no information available*

*Lower explosion limit:*

*no information available*

*Vapor pressure:*

*not determined*

*Vapor density:*

*No information available.*

*Density:* *2.13 g/cm<sup>3</sup> (20°C)*

*Solubility in water:* *1090 g/l (20°C)*

*Coefficient of variation (n-Octanol/Water):*

*no information available*

*Auto-ignition temperature:*

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*No information available.*

*Decomposition temperature:*

*not determined*

*Viscosity, dynamic:*

*not available*

*Explosive properties:*

*Product does not present an explosion hazard.*

*Oxidizing properties:*

*no information available*

*Bulk density:*

*1100 - 1200 kg/m<sup>3</sup> (20°C)*

#### 9.2. Further Information

*Solubility in solvents:*

*Viscosity, kinematic:*

*Burning class:*

*Solvent content:*

*Solid content:*

*Particle size:*

*Other information:*

*No further information.*

---

#### 10. Stability and Reactivity

##### 10.1. Reactivity

*Stable if used according to specifications.*

##### 10.2. Chemical Stability

*No decomposition if used according to specifications.*

##### 10.3. Possibility of Hazardous Reactions

*Strong heat development when diluted or dissolving in water.*

*Reacts with acids (exothermal reactions).*

*Reactions with metals: development of hydrogen.*

##### 10.4. Conditions to Avoid

*Conditions to avoid:*

*Avoid humidity.*

*Thermal decomposition:*

##### 10.5. Incompatible Materials

*Aluminium, zinc, tin and other compounds of these metals.*

##### 10.6. Hazardous Decomposition Products

*Formation of hydrogen after reaction with base metals.*

##### 10.7. Further Information

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#### 11. Toxicological Information

##### 11.1. Information on Toxicological Effects

*Acute Toxicity*

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*LD50, oral:*

*No information available.*

*LD50, dermal:*

*No information available.*

*LC50, inhalation:*

*No information available.*

*Primary effects*

*Irritant effect on skin:*

*Causes chemical burns to skin and mucous membrane.*

*Irritant effect on eyes:*

*Causes serious eye damage.  
Risk of blinding!*

*Inhalation:*

*No information available.*

*Ingestion:*

*No information available*

*Sensitization:*

*No sensitizing effects known.*

*Mutagenicity:*

*No relevant data found.*

*Reproductive toxicity:*

*No relevant data found.*

*Carcinogenicity:*

*No relevant data found.*

*Teratogenicity:*

*No information available.*

*Specific target organ toxicity (STOT):*

*No relevant data found.*

*Additional toxicological information:*

*Can cause chemical burns in mouth, throat and stomach. Risk of perforation of the esophagus and stomach.*

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## 12. Ecological Information

### 12.1. Aquatic Toxicity

*Fish toxicity:*

*LC50: 33 - 196 mg/l (96h, fish)  
EC50: 40.4 mg/l (48h, crayfish)*

*Daphnia toxicity:*

*No information available.*

*Bacteria toxicity:*

*no information available*

*Algae toxicity:*

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*No information available.*

### 12. 2. Persistency and Degradability

*Methods for the evaluation of the biological degradability are not applicable for inorganic substances.*

### 12. 3. Bioaccumulation

*Bioaccumulation is not to be expected.*

### 12. 4. Mobility

*Adsorption to solid soil phase is not expected.*

### 12. 5. Results of PBT- und vPvP Assessment

*Not applicable.*

### 12. 6. Other Adverse Effects

*Water hazard class:*

*1 (German Regulation) (Assessment by list): slightly hazardous.  
Do not let run into surface waters, waste water or soil.  
Harmful for fish and bacteria.*

*Behaviour in sewage systems:*

*Product should be neutralized before discarding to sewage system.*

*Further ecological effects:*

*This product causes no biological oxygen depletion.  
After neutralization only a relatively low adverse effect of the formed salts is present. The pH value has to be taken into consideration if no neutralisation is carried out. The toxic effect for fish and bacteria is below pH 6 and above pH 9.  
Harmful to aquatic organisms caused by a pH shift.  
Rinse off of bigger amounts into drains or aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms.  
The pH-value is reduced significantly when the used product is diluted, so that the waste water which might enter the sewage system is only slightly hazardous to water.*

*AOX Value:*

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## 13. Disposal Considerations

### 13. 1. Waste Treatment Methods

*Product:*

*Must not be disposed together with household garbage.  
If product cannot be reused or recycled, it has to be disposed of according to current local regulations.*

*European Waste Code (EWC):*

*Uncleaned packaging:*

*Empty containers can be landfilled after cleaning, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.  
Suggested cleaning agent: water. Detergent can be added if necessary.*

*Waste Code No.:*

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### 14. Transport Information

#### 14.1. UN Number

ADR, IMDG, IATA 1823

#### 14.2. UN Proper Shipping Name

ADR/RID: NATRIUMHYDROXID, FEST

IMDG/IATA: SODIUM HYDROXIDE, SOLID

#### 14.3. Transport Hazard Classes

ADR Class: 8

Hazard no.: 8

Classification code: C6

Tunnel restriction code: E

IMDG Class (sea): 8

Hazard no.: 8

EmS No.: F-A, S-B

IATA Class: 8

Hazard no.: 8

#### 14.4. Packaging Group

ADR/RID: II

IMDG: II

IATA: II

#### 14.5. Environmental Hazards

None

#### 14.6. Special Precautions for User

Warning: corrosive substances

#### 14.7. Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code

not applicable

#### 14.8. Further Information

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### 15. Regulatory Information

#### 15.1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:

1, slightly hazardous for water (German Regulation)

Local regulations on chemical accidents:

Not listed.

Employment restrictions:

The employment restrictions for young workers in accordance with the Youth Employment Protection Law are to be observed.

Restriction and prohibition of application:

Technical instructions on air quality:

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### 15. 2. Chemical Safety Assessment

*A Chemical Safety Assessment has been carried out for this product.*

*EC SVHC-List: This product does not contain a substance in the candidate list for substances of very high concern (REACH Regulation (EC) 1907/2006, Article 57)*

### 15. 3. Further Information

*Seveso III Directive: not applicable under Directive 2012/18/EC.  
RoHS Directive 2011/65/EC on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS 2): not listed.*

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### 16. Other Information

*This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.*