

# Safety Data Sheet

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



## 64426 Sodium Borohydride

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Version: 2.0

Printed: 16.01.2026

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

#### 1.1. Product Identifier

*Product Name:* Sodium Borohydride

*Article No.:* 64426

*UFI:*

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

*Identified uses:*

*Reducing agent*

*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

*EMail:* 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)*

*Substances and mixtures, which in contact with water, emit flammable gases, hazard category 1  
Acute toxicity (oral), hazard category 3  
Skin corrosion, hazard category 1C  
Serious eye damage, hazard category 1  
Reproductive toxicity, hazard category 1B*

H260 In contact with water releases flammable gases which may ignite spontaneously.  
Cat.:

H301 Toxic if swallowed.  
Cat.: 3

H314 Causes severe skin burns and eye damage.  
Cat.: 1

H360Fd Suspected of damaging fertility. May damage the unborn child.  
Cat.: 1B

*Possible Environmental Effects:*

#### 2.2. Label Elements

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

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### Hazard designation:



GHS02



GHS05



GHS06-2



GHS08

### Signal word:

Danger

### Hazard designation:

H260	In contact with water releases flammable gases which may ignite spontaneously.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H360Fd	Suspected of damaging fertility. May damage the unborn child.

### Safety designation:

P201	Obtain special instructions before use.
P231+P232	Handle under inert gas. Protect from moisture.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/ clothing/ eye/ face protection.
P301+P310	If swallowed: Immediately call a poison center or physician.
P301+P330	If swallowed: Rinse mouth.
P302+P334	If on skin: Immerse in cool water/wrap in wet bandages.
P302+P352	If on skin: Wash with soap and water.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing.
P308+P313	If exposed or concerned: Get medical advice/attention.
P370+P378	In case of fire: use water spray, foam, carbon dioxide or dry extinguishing powder for extinction.

### Hazardous components for labelling:

2.3. Other Hazards

## 3. Composition/Information on Ingredients

3.1. Substance

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### 3.2. Mixture

*Chemical Characterization:*

*Information on Components / Hazardous Ingredients:*

Sodium tetrahydroborate (H260-301-314-318-360FD); REACH Reg.-Nr. 01-2119485016-39	90 - 100 %	CAS-Nr: 16940-66-2 EINECS-Nr: 241-004-4 EC-Nr:
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*Additional information:*

## 4. First Aid Measures

### 4.1. Description of the First Aid Measures

*General information:*

*Take person away from hazardous area.  
Show this safety data sheet to the doctor in attendance.  
Intoxication symptoms may occur after several hours.  
Do not leave affected persons unattended.*

*After inhalation:*

*Get medical attention immediately or contact a poison center.  
Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
If it is suspected that are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.  
In case breathing is not regular or if it has stopped, seek medical advice immediately and initiate first aid measures.  
Mouth-to-mouth resuscitation may be harmful to the person giving first aid.  
Keep the airways open. Unfasten tight garments (collar, tie, belt).*

*After skin contact:*

*Immediate medical treatment necessary. Caustic burns can cause wounds which do not easily heal.  
Remove loose particles from skin using a brush.  
Consult a physician immediately.  
After contact with skin, rinse with plenty of water.  
Continue to rinse for at least 10 minutes.  
Submerge in cold water or apply a wet bandage.*

*After eye contact:*

*Small splashes in the eyes can cause irreversible tissue lesions and blindness.  
In case of eye contact, thoroughly rinse with water and consult a doctor. Remove contact lens.  
Continue flushing during transport to hospital.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
In case of continued complaints consult a specialist.*

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### *After ingestion:*

*Get medical attention immediately or contact a poison center.  
Chemical burns have to be treated immediately by a physician.  
Rinse mouth with water and give small amount of water to drink.  
Do not give anything to drink should exposed person feel sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.  
Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband.  
Immediately transport patient to nearest medical facility.*

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

#### *Symptoms:*

*Product can cause burns of eyes, skin and mucous membranes.  
Swallowing: supportive treatment. Watch carefully for signs of caustic burns in the gastrointestinal tract and treat according to the recommended treatment protocol.  
Repeated exposition: can be toxic to reproduction.*

#### *Effects:*

*Toxic if swallowed.  
Causes severe burns.  
Causes serious eye damage.  
May damage fertility. May damage the unborn child.*

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

#### *Treatment:*

*Treat symptomatically.  
For further advice of a specialist, the physician should contact a poison control center.*

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## 5. Fire-Fighting Measures

### 5. 1. Extinguishing Media

#### *Suitable extinguishing media:*

*Carbon dioxide (CO<sub>2</sub>), extinguishing powder, sand.*

#### *Unsuitable extinguishing media:*

*Foam  
Water*

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

#### *Special hazards:*

*Do not let extinguishing water enter the sewerage system or water courses.  
In case of fire: formation of metal oxides, hydrocarbons.*

### 5. 3. Advice for Firefighters

#### *Protective equipment:*

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*Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.*

### *Further information:*

*Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.*

*Move the container from the scene of fire, if that can be done without risks.*

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

*Contaminated extinguishing water and debris should be disposed of according to local regulations.*

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## **6. Accidental Release Measures**

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

#### *Personal precautions:*

*Avoid contact with skin and eyes. Do not ingest or inhale.*

*Wear appropriate protective equipment. Keep spectators away.*

*Ensure adequate ventilation.*

*Keep away from water.*

*Evacuate the danger area, observe emergency procedures, consult an expert.*

### 6.2. Environmental Precautions

#### *Environmental precautions:*

*Do not allow entering sewage system or water.*

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

### 6.3. Methods and Material for Containment and Cleaning Up

#### *Methods and material:*

*Cover drains. Collect, bind and pump off spills.*

*Take up mechanically and collect in suitable container for disposal. Rinse spill area. Avoid dust formation.*

*Do not rinse with water.*

*Clean up with a suitable industrial vacuum cleaner and dispose adequately.*

### 6.4. Reference to other Sections

*Protective clothing, see Section 8.*

*Dispose of contaminated material according to Section 13.*

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## **7. Handling and Storage**

### 7.1. Precautions for Safe Handling

#### *Instructions on safe handling:*

*Keep workplace dry. Product must not get in contact with water.*

#### *Hygienic measures:*

*Avoid contact with eyes and skin.*

*Do not eat or drink during work. Do not smoke.*

*Change contaminated clothing. Preventive skin protection*

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*recommended. Wash hands after work.*

### 7.2. Conditions for Safe Storage, including any Incompatibilities

*Storage conditions:*

*Store in tightly sealed containers in a dry room.  
Keep away from ignitable sources, heat and fire.  
This product should only be handled by professional personnel.  
Keep product shut away or kept in a manner so as to ensure that only qualified persons may have access.  
Avoid any contact with water during storage.  
Protect product from direct sunlight.*

*Requirements for storage areas and containers:*

*Store the product in the original container.  
Open container cautiously, it may be under pressure.*

*Information on fire and explosion protection:*

*Keep away from sources of heat and ignition - do not smoke.*

*Storage class:*

*4.3; Solid substances which form flammable gases in contact with water*

*Further Information:*

*Recommended storage temperature: < 60°C*

### 7.3. Specific End Use(s)

*Further information:*

*See Section 1.2.; no other uses provided*

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## 8. Exposure Controls/Personal Protection

### 8.1. Parameters to be Controlled

*Parameters to be controlled (DE):*

*none known*

*Parameters to be controlled:*

*Derived No-Effect Level (DNEL):*

*5.1 mg/m<sup>3</sup> (worker, inhalation, long-term exposition - systemic effects)  
240 mg/kg bw/d (worker, skin contact, long-term exposition - systemic effects)  
0.17 mg/kg bw/d (consumer, swallowing, long-term exposition - systemic effects)*

*PNEC (Predicted No-Effect Concentration):*

*Fresh water: 1.75 mg/l  
Sea water: 1.75 mg/l  
Fresh water sediment: 2.55 mg/kg dw  
Sea water sediment: 0.255 mg/kg dw*

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*Sewage treatment system (STP): 54.77 mg/l*

*Intermittent release: 1.75 mg/l*

*Soil: 4.8 mg/kg*

### *Additional Information:*

#### 8.2. Exposure Controls

##### *Technical protective measures:*

*Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.*

##### *Personal Protection*

##### *General protective measures:*

*Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work. Remove contaminated clothing immediately.*

##### *Respiratory protection:*

*Recommended: filter P2 (EN 143)*

##### *Hand protection:*

*Protective gloves (EN 374)*

##### *Protective glove material:*

*Protective gloves made of butyl rubber.*

*Wearing period: < 60 min*

##### *Eye protection:*

*Tightly fitting safety goggles (EN 166).*

##### *Body protection:*

*Protective clothing, chemical resistant.*

##### *Environmental precautions:*

*Do not allow entering sewerage system.*

*Risk of explosion.*

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## 9. Physical and Chemical Properties

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

*Form: solid*

*Color: white*

*Odor: amine-like*

*Odor threshold: no information available*

*pH-Value: not available*

*Melting temperature: > 360°C*

*Boiling temperature: > 400°C (1013 hPa)*

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<i>Flash point:</i>	69°C
<i>Evaporation rate:</i>	No information available.
<i>Flammability (solid, gas):</i>	not available
<i>Upper explosion limit:</i>	not determined
<i>Lower explosion limit:</i>	
<i>Vapor pressure:</i>	< 0.0001 hPa (20°C)
<i>Vapor density:</i>	
<i>Density:</i>	1.07 g/cm <sup>3</sup> (20°C)
<i>Solubility in water:</i>	no information
<i>Coefficient of variation (n-Octanol/Water):</i>	-1.09 log POW
<i>Auto-ignition temperature:</i>	No information available.
<i>Decomposition temperature:</i>	> 220°C
<i>Viscosity, dynamic:</i>	not applicable
<i>Explosive properties:</i>	not available
<i>Oxidizing properties:</i>	no information available
<i>Bulk density:</i>	400 kg/m <sup>3</sup>
9.2. Further Information	
<i>Solubility in solvents:</i>	
<i>Viscosity, kinematic:</i>	
<i>Burning class:</i>	5 (20°C)
<i>Solvent content:</i>	
<i>Solid content:</i>	
<i>Particle size:</i>	
<i>Other information:</i>	Ignition temperature: > 400°C

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## 10. Stability and Reactivity

10.1. Reactivity  
No information available.

10.2. Chemical Stability

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*Stable if used according to specifications.*

### 10.3. Possibility of Hazardous Reactions

*Spontaneous ignition is possible.  
Reactions with acids, oxidants, heavy metals and their salts.  
Reacts with water.  
Combustible and toxic gases can be released.*

### 10.4. Conditions to Avoid

*Conditions to avoid:*

*Avoid humidity.*

*Thermal decomposition:*

### 10.5. Incompatible Materials

*Water, acids, oxidizing agents, alcohols, metallic salt  
Metals, aluminium, zinc, copper*

### 10.6. Hazardous Decomposition Products

*Reacts violently with water liberating highly flammable gases.  
Can cause flammable hydrogen gas.*

### 10.7. Further Information

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## 11. Toxicological Information

### 11. 1. Information on Hazard Classes as defined in Regulation (EC) No. 1272/2008

*Acute Toxicity*

*Toxic if swallowed.*

*LD50, oral:*

*55.57 mg/kg (rat/f; OECD 425)*

*LD50, dermal:*

*4000-8000 mg/kg (rabbit/m)*

*LC50, inhalation:*

*> 1.3 mg/l (4h, rat/m)*

*Primary effects*

*Irritant effect on skin:*

*Causes severe burns.  
Caustic after 1-4 hours of exposition (rabbit, OECD 404)*

*Irritant effect on eyes:*

*Causes serious eye damage.  
May cause irreversible damage to the eyes.*

*Inhalation:*

*No information available.*

*Ingestion:*

*No information available*

*Sensitization:*

*No sensitizing effects known (guinea pig).*

*Mutagenicity:*

*In vitro genetic-toxicity: Ames-Test negative (Salmonella typhimurium; OECD 471)*

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*In vitro genetic-toxicity: negative (OECD 476, mouse lymphoma cells)*

*In vitro genetic toxicity: negative (DNS Synthesis in Mammalian Cells; OECD 482)*

*In vivo genetic-toxicity: micronucleus negative (mouse, m/f, oral; OECD 474)*

### Reproductive toxicity:

*May damage fertility. May damage the unborn child.*

*Effect on fertility:*

*NOAEL 2000 ppm (oral, rat m/f, three generation study; dosage: 670, 2000, 6700 ppm)*

*Effects on the development of the unborn child:*

*General toxicity in mothers: NOAEL: 1000 ppm; Developmental toxicity: NOAEL: 750 ppm (prenatal, oral, rat; dosage: 250, 500, 750, 1000, 2000 ppm; OECD 414)*

### Carcinogenicity:

*Not cancerogenic.*

*Negative (mouse, m/f, oral 2500 - 5000 ppm; 103 weeks; OECD 451)*

### Teratogenicity:

*No information available.*

### Specific target organ toxicity (STOT):

*Single exposure: Not classified based on available information.*

*Repeated exposure: Not classified based on available information.*

### Aspiration hazard:

*Not applicable*

## 11. 2. Information on other Hazards

### Endocrine Disrupting Properties:

*This substance/mixture does not contain any components with endocrine disrupting properties in a percentage of 0.1 or greater, according to Article 57(f) of the REACH Regulation (EC) No. 1907/2006 or the Delegated Regulation (EC) 2017/2100 or the Delegated Regulation (EC) 2018/605.*

## 12. Ecological Information

### 12. 1. Aquatic Toxicity

#### Fish toxicity:

*LC50: 74 mg/l (96h, fish)*

#### Daphnia toxicity:

*EC50: 133 mg/l (48h, Daphnia magna)*

#### Bacteria toxicity:

*No data available.*

#### Algae toxicity:

### 12. 2. Persistency and Degradability

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*No information available.*

12. 3. Bioaccumulation

*log POW: -1.09 (low)*

12. 4. Mobility

*No data available.*

12. 5. Results of PBT- und vPvP Assessment

*This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1 % or higher.*

12. 6. Endocrine Disrupting Properties

*This substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) No. 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.*

12. 7. Other Adverse Effects

*Water hazard class:*

*2 (German Regulation) (Assessment by list): hazardous.  
Do not let product contaminate ground water, waterways or sewage system.*

*Behaviour in sewage systems:*

*Further ecological effects:*

*Avoid subsoil penetration. Prevent product from entering drains.  
Do not contaminate surface water.*

*Biochemical oxygen demand (BOD): 364 mg O<sub>2</sub>/g*

*Chemical oxygen demand (COD): 480 mg/g*

*AOX Value:*

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### 13. Disposal Considerations

13. 1. Waste Treatment Methods

*Product:*

*Do not discard in sink or garbage.  
Do not empty into drains. Avoid release into the environment.  
Dispose with a licensed waste disposal company.*

*European Waste Code (EWC):*

*Uncleaned packaging:*

*Empty container completely.  
Contaminated packaging must be treated like the substance.  
Do not reuse container.  
Do not burn, or use a cutting torch on, the empty drum.*

*Waste Code No.:*

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### 14. Transport Information

14. 1. UN Number

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	<i>ADR, IMDG, IATA</i>	1426
14. 2.	UN Proper Shipping Name	
	<i>ADR/RID:</i>	<i>NATRIUMBORHYDRID</i>
	<i>IMDG/IATA:</i>	<i>SODIUM BOROHYDRIDE</i>
14. 3.	Transport Hazard Classes	
	<i>ADR Class:</i>	4.3
	<i>Hazard no.:</i>	4.3
	<i>Classification code:</i>	W2
	<i>Tunnel restriction code:</i>	E
	<i>IMDG Class (sea):</i>	4.3
	<i>Hazard no.:</i>	4.3
	<i>EmS No.:</i>	F-G, S-O
	<i>IATA Class:</i>	4.3
	<i>Hazard no.:</i>	4.3
14. 4.	Packaging Group	
	<i>ADR/RID:</i>	I
	<i>IMDG:</i>	I
	<i>IATA:</i>	I
14. 5.	Environmental Hazards	<i>Not classified as environmentally hazardous.</i>
14. 6.	Special Precautions for User	
14. 7.	Maritime Transport in Bulk according to IMO Instruments	<i>not applicable</i>
14. 8.	Further Information	<i>IATA (Passenger): The transportation in a passenger airplane is not allowed.</i>

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### 15. Regulatory Information

15. 1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

*Water hazard class:*

*2, hazardous for water (according to the German Regulation AwSV)*

*Local regulations on chemical accidents:*

*Seveso-III Directive (2012/18/EU):*

*Toxic (2); Amount 1: 50 t; Amount 2: 200 t*

*Employment restrictions:*

*The employment restrictions for young workers in accordance with the Youth Employment Protection Law are to be observed. Observe employment restrictions in accordance with the law on the protection of mothers at work, in training, and in education*

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(Mutterschutzgesetz – MuSchG).

### *Restriction and prohibition of application:*

*Not permitted for privat consumers.*

*EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles, Registered no. 40*

### *Technical instructions on air quality:*

#### 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 above the legal limit value (> 0.1 % (w/w) REACH Regulation (EC) 1907/2006, Article 57).*

#### 15. 3. Further Information

*Regulation (EC) 1005/2009 - Substances that Deplete the Ozone Layer: not regulated / not applicable*

*Regulation (EC) 649/2012 concerning the export and import of dangerous chemicals: Not applicable*

*Regulation (EC) No. 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors: not forbidden and/or not restricted*

*EC. REACH, Annex XIV, Candidate List of Substances of very High Concern (SVHC): not regulated / not applicable*

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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.*