

MATERIAL SAFETY DATA SHEET

compliant with regulations Version (EC) No 1907/2006 (REACH), (EC) No 1272/2008 (CLP)

1. Identification of the substance/preparation and of the company

1.1 Identification of the substance/preparation

Trade name:

BINAL®

REACH registration No.: Pre-Registration No. 05-2114257078-45-0000

1.2 Use of the substance/preparation

- 1.2.1 Identified use:** Chem. production, metallurgy, additive for aluminium casting, production of Polyamid12, conditioning and etching of fluorinated plastics, dehalogenation and desulfuration of mineraloil, as a reducing agent for chemical syntheses

1.3 Identification of the company

supplier /producer/
importer/user/
trader

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2. Hazards identification

2.1



2.1.1 Classification:

Regulation (EG) No. 1272/2008, appendix VII	
Hazard class/- category	Hazard notes
Water-react. 1	H260
Skin Corr. 1B	H314

67/548/EWG or 1999/45/EG	
	R-Sätze
Highly flammable (F)	R 14/15
corrosive (C)	R 34

2.2 Additional hazard notes concerning humans and environment:

Reacts violently with water (EUH014)



3. Composition / Information on ingredients

3.1 Information on substance: sodium, chemical element, metal

CAS-No.: 7440-23-5

EG-Nr.: 213-132-9

EINECS: 231-132-9

Index-No.: 011-001-00-0

Reach registration No.: **Pre-Registration No.:** 05-2114257078-45-0000

Purity: >99.9 %

3.2 Additional notes:

The transition period according to REACH-Regulation, article 23, is not exhausted yet.

4. First aid measures

4.1 general: contacted cloths to be removed at once

4.2 Skin contact: remove metal dry and flush the skin with plenty of water for at least 15 minutes.

4.3 Eye Contact: remove sodium, then immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention.

4.4 Ingestion: do not induce vomiting (risk of perforation). Give large quantities of water (at least one liter). Seek immediate medical attention.

4.5 Notes for physician: Medical treatment according to alkali burn.
Show this safety data sheet to the doctor in attendance.

5. Fire fighting measures

5.1 Extinguishing Media:

Dry soda ash, Extinguishing powder class D, dry salt, dry concrete

5.2 Non applicable extinguishing media:

Water, CO₂, extinguishing agents class A, B, C, E and foam

5.3 Special danger by the substance or its incineration product or occurring gases:

Emits toxic fumes under fire conditions.
Material readily reacts with water generating flammable and/or explosive hydrogen gas

5.4 Special protective equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.




5.5 Additional note:

Fire classification: D






6. Accidental Release Measures

- 6.1 Personal precautions:** Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.
- 6.2 Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
- 6.3 Methods for cleaning up:** Pick up and arrange disposal without creating dust. Do not flush with water. Keep in suitable, closed containers for disposal.

7. Handling and Storage

- 7.1 Handling** Keep workplace dry. Keep substance away from any moisture
- 7.1.1 Recommended Equipment and** Staff has to wear fire-resistand clothes, splash goggles and nitrile covered gloves.   
- 7.1.2 Fire Prevention** Keep away from any moisture because substance reacts violently with water to give hydrogen gas and caustic solution of sodium hydroxide. Mixture of air and hydrogen may explode. Keep dry.
- 7.2 Storage**
- 7.2.1 Storage Requirement:** dry, **NO** Sprinkler System, Do not store together with incompatibles such as oxidizing agents, acids, moisture. Recommended storage temperature: Room temperature

8. Exposure Controls / Personal Protection

- 8.1 Technical Measures:** provide fire extinguisher
Risk of corrosion
- 8.2 Exposure limit values:**
Not applicable
- 8.3 Personal Protection**
- 8.3.1 Respiratory Protection:** Normally there is no respiration protection necessary. In exceptional case (at exemple: accidental release) it is necessary to wear respiration protection. 
- 8.3.2 Hand Protection:** nitrile covered gloves 
- 8.3.3 Eye Protection:** splash goggles, in exceptional cases it is necessary to wear a full length face shield  
- 8.3.4 Skin Protection:** It is necessary to wear fire-resistand clothes. 

9. Physical and Chemical Properties

9.1 General Information

- 9.1.1 **Physical state:** solid
- 9.1.2 **Colour:** silvery
- 9.1.3 **Odour:** odourless

9.2 Important health, safety and environmental information:

- 9.2.1 **Melting point** 97,8 °C
- 9.2.2 **Boiling point** 892 °C
- 9.2.3 **Ignition temperature** 115 °C
- 9.2.4 **Viscosity (100 °C)** 0,68 mPa.s
- 9.2.5 **Density (20 °C)** 0,97 g/cm³

10. Stability and Reactivity

- 10.1 **Conditions to be avoided:** High humidity, high temperature
- 10.2 **Compounds to be avoided:** water, oxidising agent, air, alcohol, acids
- 10.3 **Hazardous decomposition products:** reacts violently with water to emit flammable gases and caustic solution of sodium hydroxide. Mixture of air and hydrogen may explode.

11. Toxicological Information

- Acute Toxicology:** no relevant values known
- Additional advice:** Overexposure by skin or eye contact include skin burns or ulceration; eye corrosion with corneal or conjunctive ulceration. By inhalation of fumes the effects include irritation of the upper respiratory passages with coughing and discomfort. By ingestion, the effects include abdominal discomfort characterised by nausea, severe pain, diarrhea and collapse.

12. Ecological Information

- General Information:** Sodium reacts with humidity to form sodium hydroxide in aqueous solution. The alkaline characteristics of this solution has to be regarded.

13. Disposal Considerations

- 13.1 Product** Call the supplier for technical advice in the individual case.
Pick up the material and transfer in dry drum, close tightly and store in UN-x-coded transport drum. Sodium disposal must not be attempted by inexperienced people. Transport to incineration plant according to ADR-regulation No. 4.3; I
- 13.2 Packaging**
- 13.2.1 Solid Packaging** clean with isopropanol carefully and rinse with water before disposal. Do not drain into municipal water system.

14. Transport Information



14.1 Rail and Road ADR/RID/GGVSE:

ADR/RID-GGVS/E class: 4.3 (W2) Material that emits flammable gases on contact with water.
Kemler-Zahl: X423
UN-NO: 1428
Packaging Group: I
Identification: 1428 Sodium



14.2 Sea IMDG/GGVSea:

IMDG/GGVSea-class: 4.3
UN-NO: 1428
Lable 4.3
Packaging Group: I
Identification: 1428 SODIUM



14.3 Air ICAO-TI und IATA-DGR :

ICAO/IATA-class: 4.3
UN/ID-NO: 1428
Packaging Group: 4.3
Identification: 1428 SODIUM

UN“Model Regulation“: UN1428, Natrium, 4.3,I

15. Regulatory Information

15.1 **Marking**

15.1.1 **Code letter and Hazard Declaration:**



F; highly flammable
C; corrosive

15.1.2 **R-Phrases**

R14/15: reacts violently with water to emit flammable gases

R34: Causes burns

15.1.3 **S-Phrases**

S05: Keep contents under inert gas or paraffinoil

S08: Keep container dry

S43: In case of fire use dry sand or rock salt

- **Never use water**

S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

16. Other Information

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations. The product must not be used for any purposes other than those specified under heading 1 without first obtaining written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties

This information is taken from sources based upon data believed to be reliable.

However Dr. Bilger Umweltconsulting GmbH makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions.

Local laws and regulations have to be considered by the customer upon own responsibility.