**EG-Material Safety Data Sheet** 

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According to EC Directive 91/155/EEC and 2001/58/EG of the Commission of the European Community

## 1. Identification of the substance and of the company

Product name: HALEX® (Sodium coated Ceramics)

## Use of the substance/preparation:

Destroying of halogenated compounds in oil, destroying of halogenated gases, as a drying reagent, lowering of acidity in used oils

**Supplier:** Dr. Bilger Umweltconsulting GmbH

Gewerbepark Birkenhain 7a

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**Hotline:** phone: +49-6051-9166951 Fax: +49-6051-9166957

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Research and development: phone: +49-6051-9166954

## 2. Composition/Ingredients

EC-No.: 231-132-9

chemical characterisation: metal from alkali metal series

Symbol: F (highly inflammable); C (corrosive)

R-phrases: 14/15-34 S-phrases: 5-8-43-45

dangerous ingredients: Na (Sodium) with < 30 %

# 3. Hazards Identification

flammable, caustic

Reacts violently with water, liberating flammable gas (hydrogen). Causes burns.

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# 4. First Aid Measures

#### **General advices:**

Dirty clothes must be removed immediately

#### Inhalation:

If fumes from sodium burns are inhaled, remove victim to fresh air immediately. If breathing is difficult give oxygen. Call a physician.

#### Skin contact:

Remove metal dry and flush the skin with plenty of water for at least 15 minutes

## **Eye Contact:**

In case of contact, remove sodium, then immediately flush eyes with plenty of water for at least 15 minutes. Call a physician

#### Ingestion:

If swallowed, do not induce vomiting (risk of perforation). Give large quantities of water (at least one liter). Call a physician immediately.

### Available aid at the activity area:

Eye wash bottle Emergency shower

#### 5. Fire Fighting Measures

## **Extinguishing Media:**

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

#### Non applicabile extinguishing media:

Water, CO<sub>2</sub>, extinguishing agents class A, B, C, E and foam

Stay upwind and use self-contained breathing apparatus if needed.

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## 6. Accidental Release Measures

**personal:** Persons handling sodium should be thoroughly familiar with its hazards

and proper first aid procedures. Avoid substance contact

#### **Environmental Protection:**

Do not allow to enter sewerage system; risk of explosion

## **Procedures for cleaning:**

Pick up dry, cover rest with dry sand or other convenient inert material and transfer to a metal can for correct disposal

In no case use water

#### 7. Handling and Storage

**Handling:** Keep workplace dry. Keep substance away from any moisture

**Storage:** Store in separate area without any sprinklers, steam, water lines or

potential for flooding as heavy reaction with water creating explosive

dases.

Keep drums tightly closed. Do not store together with combustibles or

flammables.

Store in Nitrogen- or Argon-atmosphere. Working area shall be dry an

preferably well vented.

#### Advise for clustering:

Do not store together with high flammable liquids

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## 8. Exposure Controls & Personal Protection

## **Engineering controls:**

Good ventilation should be provided to keep fume concentrations below the exposure limits and prevent the accumulation of hydrogen gas.

#### **Personal Protective Equipment:**

Wear dry nitrile rubber gloves and chemical splash goggles and a **full** length face shield.

### **Protective Clothing:**

When larger amounts of sodium are handled specific protective clothing is necessary.

The resistance of the protective clothing to solutions of sodium hydroxide should be ascertained with the potential supplier.

#### 9. Physical and chemical Properties

Form: solid
Colour: black
Odour: odourless
Melting point: 98°C (Sodium)
Sodium content: 20 weight%
Boiling point: 881°C (Sodium)

Ignition temperature: n.a.

Bulk Density: 0.6 g/ml at 20°C

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**HALEX**® **Product Name:** 

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# 10. Stability and reactivity

Conditions to be avoided: High humidity, high temperature

Compounds to be avoided: water, oxidising agent, air, alcohol, acids

#### **Hazardous decomposition products:**

reacts violently with water to emit flammable gases and caustic solution of sodium hydroxide. Mixture of air and hydrogen may explode.

Reacts violently with halogens, halogenated hydrocarbons and oxidising agents as well as other inorganic and organic substances.

# 11. Toxicology

## Acute tocicology:

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, diarrhoea and collapse.

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# 12. Ecological aspects

**General Information:** Sodium reacts with humidity to form sodium

hydroxide in aqueous solution. The alkaline

characteristics of this solution have to be regarded.

### 13. Disposal Considerations

#### **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

## **Empty drums and Packaging:**

clean with isopropanol carefully and rinse with water before disposal. Do not drain into municipal water system.

Local conditions and regulations have to be applied.

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## 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-Number: 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

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# 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

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)

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#### 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.