

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 03/15/2004

Reviewed on 03/15/2004

1 Identification of substance

· **Product details**

· **Trade name:** EDCO Shield

· **Article number:** 83-307754

· **Application of the substance / the preparation**

· **Manufacturer/Supplier:**

EDCO Equipment Development Company, Inc
100 Thomas Johnson Drive
Frederick, MD 21702

Tel.: 301-663-1600

· **Information department:** Environmental, Health, and Safety department.

2 Composition/Data on components

· **Chemical characterization**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

1344-09-8	Silicic acid, sodium salt	10-25%
1310-58-3	potassium hydroxide	£ 10%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· **Hazard description:**

Irritant

· **Information pertaining to particular dangers for man and environment:**

The product has to be labelled due to internationally acknowledged calculation procedures using the latest valid versions.

Irritating to skin.

· **Classification system:**

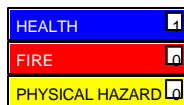
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 0
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1
Fire = 0
Reactivity = 0

4 First aid measures

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

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- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.

5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:**
Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

1310-58-3 potassium hydroxide

REL 2 mg/m³TLV Short-term value: C 2 mg/m³

- **Additional information:** The lists that were valid during the creation were used as basis.

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- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
- **Breathing equipment:** *Not required.*
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests, no recommendation to the glove material can be given for the product.
Select the glove material upon consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** *Goggles recommended during refilling.*

9 Physical and chemical properties

- **General Information**

Form:	Fluid
Color:	According to product specification
Odor:	Characteristic

- **Change in condition**

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 100°C (212°F)

- **Flash point:** *Not applicable.*

- **Auto igniting:** *Product is not selfigniting.*

- **Danger of explosion:** *Product does not present an explosion hazard.*

- **Vapor pressure at 20°C (68°F):** 23.0 hPa (17 mm Hg)

- **Density at 20°C (68°F):** 1.219 g/cm³

- **Solubility in / Miscibility with**

Water:	Fully miscible.
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- **Solvent content:**

Organic solvents:	0.0 %
Water:	76.0 %

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Solids content:	24.0 %
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10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

1310-58-3 potassium hydroxide

Oral	LD50	273 mg/kg (rat)
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· **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

12 Ecological information

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

· **Product:**

· **Recommendation:** Must not be disposed of as normal garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to Federal, State, and Local regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **DOT regulations:**

· **Hazard class:**

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· **Limited Quantity Exemption:**

No Limited Quantity exemption applies for this shipping class.

· **U.S. Domestic Ground Shipments:**

Same as listed for Standard Shipments above.

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· **U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments:** Same as listed for Standard Shipments above.

· **Land transport ADR/RID (cross-border):**

· **ADR/RID class:** -

· **Maritime transport IMDG:**

· **IMDG Class:** -

· **Marine pollutant:** No

· **Air transport ICAO-TI and IATA-DGR:**

· **ICAO/IATA Class:** -

15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to the State of California (Prop. 65) to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to the State of California (Prop. 65) to cause reproductive toxicity:**

None of the ingredients is listed.

· **Carcinogeny categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

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· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Product related hazard informations:

The product has been classified and marked in accordance with directives on hazardous materials.

· Hazard symbols:

Irritant

· Hazard-determining components of labelling:

potassium hydroxide

· Risk phrases:

Irritating to skin.

· Safety phrases:

Keep out of the reach of children.

When using do not eat or drink.

Avoid contact with skin and eyes.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.

Wear suitable protective clothing, gloves and eye/face protection.

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

If swallowed, rinse mouth with water (only if the person is conscious).

· National regulations:

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** Engineering department

· **Contact:** Engineering Manager