This Safety Data Sheet contains information to help users understand the potential hazards relating to this product and provides advice for risk management. This information must be shown to or made available to those who may come into contact with the material or are responsible for the material. This Safety Data Sheet is prepared in accordance with GHS, as adopted by the UN Economic and Social Council (ECOSOC) in July 2003 and being implemented into the US under OSHA Hazard Communication Standard 29CFR1910.1200 and being implemented into Canada to meet the legal obligations under WHMIS (Workplace Hazardous Materials Information System). Reference is also made to the current OSHA requirements, with classification to NFPA standards and also to the Canadian WHMIS Classification as part of transitional arrangements.

1. Identification of the Substance and Supplier

Trade name Avesta Neutralization Agent 502
Description Colourless solution of sodium hydroxide for neutralisation of surface treatment chemicals.
Issue date: 2008-11-21
Supplier Avesta Welding LLC
10401 Greenbough Drive
Stafford, TX 77477
USA
Tel: 1 (281) 208-3300
Fax: 1 (281) 208-3328
Email: safety@avestafinishing.com

In case of emergency call CHEMTREC: 1 (800) 424-9300
In case of non-emergency assistance (800) 441-7343 or 716-827-4400

2. Hazards Identification

The product is considered dangerous if in contact with skin, eyes or if ingested.

NFPA RATING: Health = 3 Flammability = 0 Reactivity = 0
HMIS RATING: Health = 3 Flammability = 0 Reactivity = 0
Classification WHMIS Class E, Corrosive
Classification GHS Skin Corrosion, Category 1B
DANGER : Hazard Class Corrosive,
Causes severe skin burns and eye damage
Classification EU C Corrosive, R35

Contact with skin and eyes may cause severe damage without rapid first aid. Inhalation of spray may cause irritation to the respiratory tract.
Ingestion will cause damage to the GI tract.
There are no known long-term health effects resulting from exposure.
The product is not considered as Dangerous to the Environment, although due to the alkaline nature of the product, care should be taken to avoid direct loss to the environment.

3. Composition

<table>
<thead>
<tr>
<th>CAS</th>
<th>Name</th>
<th>Content</th>
<th>Class (GHS)</th>
<th>WHMIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>20-30%</td>
<td>Category 1B Corrosive</td>
<td>Class E, Corrosive</td>
</tr>
</tbody>
</table>

Concentrated aqueous solution of sodium hydroxide

4. First Aid Measures

**Inhalation**
If exposed to spray or vapour, move to area of fresh air. If any signs of adverse effect, obtain medical advice. Treatment should be consistent with effects from exposure to strong alkalines.

**Skin contact**
Wash skin immediately with water and keep affected areas under flowing water. Obtain medical advice if continued signs of irritation or discomfort are noted. Treatment should be consistent with effects from exposure to strong alkaline. Wash clothing before re-use.

**Eye contact**
Flush eyes immediately with plenty of water for at least 15 minutes. Seek immediate medical advice. Treatment should be consistent with effects from exposure to strong alkaline.

**Ingestion**
If swallowed, rinse mouth thoroughly and drink small quantity of water (500 ml). Obtain medical advice.

**Note to medical staff:** Treat as for strong alkaline.

5. Fire fighting Measures

Not flammable

**Extinguishing media**
If in the vicinity of a fire, there are no known adverse reactions to any normal extinguishing media. The material is not known to be reactive with any extinguishing media.

**Special exposure hazards (from the material or its combustion products)**
Normal combustion products are not considered to be specifically hazardous.

**Special precautions for fire fighters**
None

6. Accidental release measures

**Personal precautions**
In case of large spill ( > 5 litres) remove unnecessary personnel away from area of spill or contamination. During cleaning, protective clothing should be worn to avoid contact with skin and eyes.

Environmental precautions
Prevent spilled material or washings entering water courses or storm-water drainage systems. Diluted product and washings may be discharged into foul-water systems leading to waste water treatment plants.

Methods for cleaning up
Spills of up to 5 litres can be rinsed away to waste water drains with large quantities of water. Spills of over 5 litres should be contained and absorbed onto sand, sawdust or other suitable material. Residues should be collected and disposed of as hazardous chemical waste in suitably labelled containers. Careful neutralisation with weak acids may be attempted under expert supervision.

The area contaminated by the spill should be washed with water.

7. Handling and storage

Handling
Eye protection, alkaline resistant gloves and coveralls recommended when handing the product. See section 8 for more details.

Storage
Store in original containers between 0 – 30°C. No special precautions.

8. Exposure controls/personal protection

Sodium hydroxide
OSHA Permissible Exposure Limit (PEL): 2 ppm (8 hour TWA)
ACGIH Threshold Limit Value (TLV): 2 ppm (8 hour TWA)
DNEL has not been determined, but no long term health effects are known if exposed to low concentrations.

Respiratory protection
None required during normal handling. Use in well ventilated areas and avoid formation of spray, aerosols or vapours.

Hand protection
Suitable chemical resistant gloves recommended for use with strong alkaline. Change gloves in accordance with manufacturer recommendations. If gloves are damaged during use, remove immediately and wash hands before replacing with new gloves.

Eye protection
Goggles must be worn when handling this product.

Skin protection
Coveralls recommended. These should be changed after use or if contaminated. Wash before re-use.

Environmental exposure controls
When handling small quantities (less than 5 litres), no special precautions required. If handling bulk material, precautions should be taken to avoid accidental release to water courses.
9. Physical and Chemical Properties

**Appearance**
Clear liquid with strong alkaline smell

**Freezing point**
< 0°C

**Boiling point**
Calc. 100°C

**Relative density**
1.26

**Water solubility**
Miscible in water, pH 14

**Flash point**
> 100°C

**Vapour pressure**
As for water

10. Stability and Reactivity

**Conditions to avoid**
The material is considered to be stable under normal conditions. Store away from direct sunlight and avoid elevated temperatures

**Materials to avoid**
Avoid contact with strong acids.

**Hazardous decomposition products**
None

11. Toxicological Information

The preparation has not been tested but the effects can be estimated using the criteria covered by GHS and through estimation from the EU Preparations Directive 2001/59/EC. Corrosive effects are predicted through consideration of the pH.

**Acute oral toxic class**
Will be dangerous if ingested due to corrosive nature of the substance

**Eyes**
Will cause severe eye damage

**Skin**
Considered corrosive to skin, GHS Category 1B

**Sensitiser**
Not considered to be a sensitisers

**Inhalation**
Inhalation of spray or aerosol may cause severe irritation to respiratory tract

**Long-term toxicity**
None of the components are listed as CMR* (*Carcinogenic, mutagenic or reproductive toxin)

12. Ecological Information

The preparation has not been tested but there are no components present at concentrations that will cause the preparation to be classified as Dangerous to the Environment. The high pH may cause local damage if released into the environment.

There are no components considered to be persistent or bioaccumulative.

13. Disposal Considerations

It is recommended to dispose of small quantities of this material (< 5 litres) by flushing with an excess of water to foul drainage. A dilution factor of 100 is recommended. Larger quantities of waste should be treated as chemical waste in a manner that complies with local regulations. Advice should be sought from local agencies. Careful neutralisation with weak acids may be attempted under expert supervision.
The containers should be rinsed thoroughly with water and can be disposed of as non-hazardous waste.
Follow supplier recommendations.

14. Transport Information

UN proper description and shipping name:
SODIUM HYDROXIDE SOLUTION
Hazard class 8, Corrosive
Packing group II
UN Number 1824

15. Regulatory Information

Classification GHS

DANGER
Skin Corrosion, Category 1B
Hazard Class Corrosive
Causes severe skin burns and eye damage

NFPA RATING: Health = 3 Flammability = 0 Reactivity = 0
HMIS RATING: Health = 3 Flammability = 0 Reactivity = 0

WHMIS

Class E, Corrosive

Classification EU C Corrosive, R35

16. Other Information

Details of EU R phrases in Section 2 and Section 15, R35, Causes severe burns

Check instructions for use before using.

Changes since last revision: This is a new format to meet GHS requirements

Manufacturer:
Avesta Finishing Chemicals
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Malmo, Sweden
Tel: +46 (0)40 28 83 00