

SAFETY DATA SHEET (91/155/EWG)

Silverbrite Anti Tarnish Salt

| | | | |
|---------------|--------------|--------------|------------|
| Material no. | 573600328074 | Version | 4.8 / GB |
| Specification | 110624 | Release Date | 17.03.2006 |
| VA-Nr | 00185862 | Print Date | 06/08/2007 |
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : Silverbrite Anti tarnish Salt

Use of the Substance / Preparation : Electroplating agent

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Alkali mixture, base: inorganic salts

Information on ingredients / Hazardous components

| | | |
|-----------------------------|----------|-----------|
| • Sodium hydroxide | 30.0000% | |
| CAS-No. 1310-73-2 | EC-No. | 215-185-5 |
| C; R35 | | |
| • potassium chromate | 30.0000% | |
| CAS-No. 7789-00-6 | EC-No. | 232-140-5 |
| Carc.Cat.2; R49 | | |
| Mut.Cat.2; R46 | | |
| Xi; R36/37/38 | | |
| R43 | | |
| N; R50, R53 | | |

See chapter 16 for text of risk phrases

3. HAZARDS IDENTIFICATION

Causes severe burns.

May cause cancer by inhalation.

May cause heritable genetic damage.

Irritating to eyes, respiratory system and skin.

May cause sensitization by skin contact.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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4. FIRST AID MEASURES

General advice

Take off all contaminated clothing immediately.

Inhalation

Bring affected person outside and ensure that he/she is comfortable.

Skin contact

Wash off immediately with plenty of water.

Eye contact

Rinse thoroughly immediately with plenty of water for at least 5 minutes keeping eyelid open.

Immediate further treatment in ophthalmic hospital/ ophthalmologist.

Ingestion

Do not induce vomiting.

Have patient drink plenty of water in small sips.

Call a physician immediately.

Notes to physician

Specific therapy/antidote treatment as for caustic burn.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

All extinguishing substances suitable.

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Contaminated fire-extinguishing water must be disposed of in accordance with the regulations issued by the appropriate local authorities.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear personal protective equipment.

Environmental precautions

Do not allow entrance in soil, stretches of water, drainage systems.

Methods for cleaning up

Use mechanical handling equipment.

Dispose of absorbed material in accordance with the regulations.

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Additional advice

Avoid dust formation.

7. HANDLING AND STORAGE

Handling

Safe handling advice

Local ventilation.

Storage

Further information

Note alkalinity of product.

Advice on common storage

Keep tightly sealed in original packing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

- **potassium chromate**

| | |
|--------------------|------------------------|
| CAS-No. | 7789-00-6 |
| Control parameters | 0.05 mg/m ³ |

| | |
|--------|--|
| EC-No. | 232-140-5 |
| | Time Weighted Average (TWA):(EH40 WEL) |

- **Sodium hydroxide**

| | |
|--------------------|---------------------|
| CAS-No. | 1310-73-2 |
| Control parameters | 2 mg/m ³ |

| | |
|--------|---|
| EC-No. | 215-185-5 |
| | Short Term Exposure Limit (STEL):(EH40 WEL) |

Personal protective equipment

Respiratory protection

Do not inhale dust or aerosols, use particle filter.

If respirable dust and airborne particulates occurs: Nose and mouth mask with P3 particle filter

Dust protection mask in accordance with EN 149 FFP3

If aerosols occur: Respirator with ABEK-P3 combination filter

Hand protection

Chemical-resistant protective gloves (EN 374)

| | |
|----------------|--|
| Glove material | Wear protective gloves made of the following materials: natural latex (NR), nitrile rubber (NBR), PVC., alkali-resistant, acid-proof |
|----------------|--|

The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

Eye protection

Safety glasses with side-shields

Eye wash bottle with pure water

Skin and body protection

chemical protective suit (acid-proof)

boots

apron

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Hygiene measures

No eating, drinking, smoking, or snuffing tobacco at work.
Wash hands before breaks and at the end of workday.
Avoid contact with skin, eyes and clothing.
Remove immediately all contaminated clothing.

Protective measures

The personal protective equipment used must meet the requirements of directive 89/686/EEC and amendments (CE certification).
If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

| | |
|--------|---------------|
| Form | solid, powder |
| Colour | yellow |
| Odour | odourless |

Safety data

| | |
|---|---------------|
| pH | ca. 13.5 - 14 |
| Boiling point/range | n.a. |
| Flash point | n.a. |
| Flammability | n.a. |
| Ignition temperature | n.a. |
| Autoinflammability | n.a. |
| Vapour pressure | n.a. |
| Density | n.a. |
| Bulk density | 1020 kg/m3 |
| Water solubility | soluble |
| Partition coefficient (n-octanol/water) | not known |

10. STABILITY AND REACTIVITY

| | |
|---------------------|--|
| Materials to avoid | Reaction with acid. |
| Hazardous reactions | No dangerous reactions are known to occur with correct handling and storage. |

11. TOXICOLOGICAL INFORMATION

| | |
|----------------------------|--|
| Sensitization | May cause sensitization by skin contact. |
| carcinogenicity assessment | Clues to possible carcinogenic effects in animal experiments. literature |

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Further information TRGS 905 "List of substances causing cancer, mutagenic material or being dangerous to reproduction"

Human experience Irritation and on occasion caustic effects to the skin and mucous membranes (eyes, respiratory channels, in the stomach/intestinal tracts after swallowing) are to be expected from local contact.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Behaviour in environmental compartments

Ecotoxicity effects

Further information on ecology

Further Information Do not pour into drainage channels because of detrimental effect on water organisms.

Before the product is discharged into the drainage system it should be treated according to the state of the art.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Uncleaned packaging

Empty containers can be landfilled after cleaning, when in compliance with local regulations. If there is product residue in the emptied container, follow directions for handling on the container's label.

Waste Key Number

No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer., The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.

14. TRANSPORT INFORMATION

Land transport ADR/RID/GGVSE (Germany)

| | |
|----------------------|-----------|
| Class | 8 |
| ADR/RID-Labels | 8 (6.1) |
| UN-No | 2923 |
| Packaging group | II |
| orange warning plate | 86 / 2923 |

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Description of the goods (Technical name)

CORROSIVE SOLID, TOXIC, N.O.S.

(sodiumhydroxide, potassium chromate)

Sea transport IMDG-Code/GGVSee

Class

8

Subsidiary risk

6.1

UN-No

2923

Packaging group

II

EmS

F-A, S-B

Proper technical name (Proper shipping name)

CORROSIVE SOLID, TOXIC, N.O.S.

(sodiumhydroxide, potassium chromate)

Air transport ICAO-TI/IATA-DGR

Class

8

Subsidiary risk

6.1

UN-No

2923

Packaging group

II

Proper technical name (Proper shipping name)

Corrosive solid, toxic, n.o.s.

(sodiumhydroxide, potassium chromate)

Inland waterway transport ADN/ADNR/GGVBinSch (Germany)

Class

8

ADR/RID-Labels

8 (6.1)

UN-No / Substance number

2923

Packaging group

II

Description of the goods (Technical name)

CORROSIVE SOLID, TOXIC, N.O.S.

(sodiumhydroxide, potassium chromate)

Loading instructions/Remarks

IATA_C

ERG-Code 8P

IATA_P

ERG-Code 8P

IMDG

Clear of living quarters.

IMDG

IMDG Code segregation group 7 - Heavy metals and their salts (incl. their organometallic compounds)

IMDG

IMDG Code segregation group 18 - Alkalies

Transport/further information

Keep separate from foodstuffs, luxury foods, feedstuffs

15. REGULATORY INFORMATION**Labelling according to EC Directives****hazard-defining component(s)**

- Sodium hydroxide
- potassium chromate

Symbol(s)

T
C
N

Toxic

Corrosive

Dangerous for the environment

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| | | |
|-------------|-----------|---|
| R-phrase(s) | R35 | Causes severe burns. |
| | R49 | May cause cancer by inhalation. |
| | R46 | May cause heritable genetic damage. |
| | R36/37/38 | Irritating to eyes, respiratory system and skin. |
| | R43 | May cause sensitization by skin contact. |
| | R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| S-phrase(s) | S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| | S37/39 | Wear suitable gloves and eye/face protection. |
| | S53 | Avoid exposure - obtain special instructions before use. |
| | S45 | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |
| | S60 | This material and its container must be disposed of as hazardous waste. |
| | S61 | Avoid release to the environment. Refer to special instructions/safety data sheets. |

National legislation

| | |
|---|---|
| CMR category (cancerogenic/mutagenic/reprotoxic) | Substances which should be regarded as if they are carcinogenic to man. Substances which should be regarded as being mutagenic to man. category 2 |
| employment restriction | Note employment restrictions for pregnant and lactating women. Note employment restrictions for minors. |
| Other regulations | Other countries: observe the national regulations. |

16. OTHER INFORMATION

Risk phrase (R phrase) texts

| | |
|----------------------|---|
| • Sodium hydroxide | |
| R35 | Causes severe burns. |
| • potassium chromate | |
| R49 | May cause cancer by inhalation. |
| R46 | May cause heritable genetic damage. |
| R36/37/38 | Irritating to eyes, respiratory system and skin. |
| R43 | May cause sensitization by skin contact. |
| R50 | Very toxic to aquatic organisms. |
| R53 | May cause long-term adverse effects in the aquatic environment. |

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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