

MSDS - Material Safety Data Sheet

1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Name: **SX - 6**

Scale remover, Low-pH compound for cooling towers and avapco units.

Company Identification: Gur Thermal Systems Cleaning Technologies Ltd., Israel.

For information call: +972 3 6492053 \ Fax: +972 3 6482892

Emergency Number: +972-544653064 / Local Health Authority.

2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Labeling according to EC Directives (1999/45/EC):

Corrosive compound. Harmful if swallowed. Moderate Toxic.

Causes eye and skin irritation & burns.

Sub risk: Corrosive.

Label: Corrosive



Potential Short Term Health Effects -

Eye: Causes eye burns & eye damage.

Skin: Causes skin burns or irritation.

Ingestion: large amounts may cause symptoms of abdominal pain, vomiting, and diarrhea.

Moderate toxic.

Inhalation: May cause respiratory tract irritation.

3 - COMPOSITION, INFORMATION ON INGREDIENTS

| Components | Chemical formula | CAS Mo. | EC No. | Percent |
|--------------------------|-----------------------------|-----------|-----------|-----------|
| Sulfamic acid | H3NSO3 | 5329-14-6 | 226-218-8 | 80% - 95% |
| Non-hazardous components | N/A (Propriety products) | N/A | N/A | 5% - 15% |

4 - FIRST AID MEASURES

Eyes:

Flush eyes with plenty of water for at least 15 minutes, Remove contact lenses occasionally lifting the upper and lower lids. Get medical aid.

Skin:

Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

Get medical aid if irritation develops or persists.

Ingestion:

Drink plenty of water. Get medical aid. Do not induce vomiting.

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration.

If breathing is difficult, give oxygen.

Get medical attention immediately.



5 - FIRE FIGHTING MEASURES

Non combustible compound.
Use suitable extinguishing media - Water spray, CO2, Foam.
Wear appropriate protective clothing.
Mount respiratory protective device, if necessary.
When heated to decomposition, may emit toxic fumes

6 - ACCIDENTAL RELEASE MEASURES

Use proper personal protective clothing & equipment.
Ventilate area of spill.
Spills: Dilute with a large amount of water & alkaline neutralizers.
Spills/Leaks: Absorb & collect spill in suitable disposal container.
Cleanup affected area.

7 - HANDLING and STORAGE

Handling:

Keep container dry. Do not ingest. Do not breathe dust.
Never add water to this product In case of insufficient ventilation, wear suitable respiratory equipment If ingested, seek medical advice immediately and show the container or the label.
Avoid contact with skin and eyes.

Storage:

Keep out of the reach of children. Store in a closed container away from strong alkaline.
Corrosive materials should be stored in a separate safety storage cabinet or room.
Store in a cool, dry, well-ventilated area, away from incompatible substances as explosives

8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Exposure Limits: The exposure limits given are for Particulates Not Otherwise Classified.

| | |
|----------|---|
| OSHA: | 15 mg/m3 TWA (Total dust) 5 mg/m3 TWA (Respirable fraction) |
| DFG MAKs | 4 mg/m3 TWA (Inhalable fraction) 1.5 mg/m3 TWA (Respirable fraction) |

Personal Protective Equipment:

Eyes: Wear safety goggles or face shield.
Maintain eye wash fountain and quick-drench facilities in work area.

Skin: Wear appropriate rubber gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to avoid contact with skin and rubber \ PVC Apron & boots.

Respirators: A NIOSH/MSHA approved air purifying dust or mist respirator.

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator

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9 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------------|-------------------------------|
| Physical State: | Solid |
| Appearance: | White crystalline solid |
| Odor: | Odorless |
| pH: | 1.18 (1% solution) at 20 °C |
| Vapor Pressure: | Not Applicable |
| Melting point | 401 °F (205 °C) |
| Boiling Point: | Decomposes at 408 °F (209 °C) |
| Evaporation rate | < 1 (BuAc = 1) |
| Flash Point : | Not Applicable |
| Solubility: | 14.7% at 0 °C |
| Specific Gravity/Density: | 2.125 (H2O = 1) |

10 - STABILITY AND REACTIVITY

Normally stable.

Stable when dry, but slowly hydrolyzes in solution. Sulfamic Acid begins to decompose at 209 °C (408 °F). At room temperature, dilute solutions of Sulfamic Acid is stable for many months. At higher temperatures and especially in stronger solutions, hydrolysis of the acid and its ammonium salt occurs, forming ammonium hydrogen sulfate and ammonium sulfate. This reaction occurs much more rapidly as the pH lowers (concentration of the acid increases)

Conditions to Avoid: Incompatible materials, sunlight & heat.

Incompatibilities with Other Materials: Strong Alkaline products.

Hazardous Polymerization: will not occur.

If heated to decomposition, will emit toxic fumes

11 - TOXICOLOGICAL INFORMATION

Human poison by an unspecified route. Moderate toxic.

LD50 (oral , rat) = 3160 mg/kg\ body weight

IARC carcinogenic category - none

Epidemiology: No data available.

12 - ECOLOGICAL INFORMATION

General Product Information:

Harmful to aquatic life in very low concentrations. Sulfamic Acid is toxic to fish and marine organisms when applied to streams, rivers, ponds or lakes.

LC50 (Pimephales promills, fathead minnow) 96 hours = 58.8-84 mg/L, fresh water, 22 °C

Do not allow compound to reach ground water sources.

Hazardous to drinking water.

Must not reach sewage water or drainage ditch undiluted or un-neutralized.

13 - DISPOSAL CONSIDERATIONS

Dilute with water.

Dispose of in a manner consistent with local regulations.

Transfer to a licensed disposal contractor.

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14 - TRANSPORT INFORMATION

US DOT – Ground / Domestic

Proper Shipping Name: Sulfamic acid

UN Number: 2967, Hazard Class: 8, Packing Group: III

IATA - Air

Proper Shipping Name: Sulfamic acid,

UN Number: 2967, Hazard Class: 8, Packing Group: III

IMO/IMDG - Water:

Proper Shipping Name: SULPHAMIC ACID,

UN Number: 2967, Hazard Class: 8, Packing Group: III, Stowage Category: A

Labels: Class 8, EmS Number: F-A, S-B,

Packaging Exceptions: <5Kg - Limited Quantity

RID/ADR - Rail, Road

Proper Shipping Name: Sulfamic acid

UN Number: 2967, Hazard Class: 8, Packing Group: III

Label: Class 8



15 - REGULATORY INFORMATION

Reported \ included on the EPA TSCA inventory list.

Community Right To Know list.

Risk Phrase & H-Statements - Full text:

| | |
|------------|---|
| R20/21/22: | Harmful by inhalation, in contact with skin and if swallowed. |
| R34: | Causes burns |
| R36 /38: | Irritating to eyes. |
| R41: | Risk of serious damage to eyes. |
| H302: | Harmful if swallowed |
| H312: | Harmful in contact with skin |
| H314: | Causes severe skin burns and eye damage |
| H373: | May cause damage to organs through prolonged or repeated exposure |

Safety Phrase: 20, 24 - 46, 60

Hazchem code: 2R.

16 - ADDITIONAL INFORMATION

According to EC Directive 91/155/EEC.

MSDS Creation Date: 2001. Amendment, by d.k. Revision: 2, 07\2013.

The information above is believed to be accurate & represents the best information currently available to us.

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