Material Safety Data Sheet

Infosafe No™ 5APH3 Issue Date: September 2015 Status: ISSUED

Product Name SEPTONE ALIBRITE

Classified as hazardous according to criteria of NOHSC.

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name SEPTONE ALIBRITE
Product Code ATA1, ATA5, ATA20
Company Name ITW AAMTech (ABN 63 004 235 063)
Address 1-9 NINA LINK DANDENONG SOUTH VIC 3175 AUSTRALIA
Emergency Tel. 1800 638 556
Telephone/Fax Tel: 1800 177 989 Fax: +61 2 9725 4698
Email info@aamtech.com.au

Recommended Use Aluminium and stainless steel cleaner.

Other Information
Website: www.aamtech.com.au
Email: info@aamtech.com.au

2. HAZARDS IDENTIFICATION

Hazard Classification
Classified as hazardous according to criteria of NOHSC.
HAZARDOUS SUBSTANCE.
DANGEROUS GOODS.

Classified as Hazardous according to criteria of National Occupational Health & Safety Commission, Australia (NOHSC).
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Risk Phrase(s)
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrase(s)
S1/2 Keep locked up and out of reach of children.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37 Wear suitable protective clothing and gloves.
S45 In case of accident or if you feel unwell seek medical advice immediately.
S7/9 Keep container tightly closed in a well ventilated place.

Other Information
GHS Classification
(as Hydrofluoric acid <1%)
Warning
Eye Irrit. 2
Met Corr. Cat 1
Pictograms: Corrosion, Exclamation Mark
H319 Causes serious eye irritation
H280 May be corrosive to metals

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization: Liquid
Information on Composition: This product contains Sulphuric Acid 46 g/L and Ammonium Bifluoride 28 g/L.
The Ammonium Bifluoride dissociates to produce a solution containing Hydrofluoric Acid 9.8 g/L (0.98% w/v).

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium bifluoride</td>
<td>1341-49-7</td>
<td>1-%&lt;5 %</td>
</tr>
<tr>
<td>Sulphuric acid</td>
<td>7664-93-9</td>
<td>1-%&lt;5 %</td>
</tr>
<tr>
<td>Hydrogen Fluoride</td>
<td>7664-39-3</td>
<td>0-%&lt;1 %</td>
</tr>
</tbody>
</table>

(Hydrofluoric acid as F)
4. FIRST AID MEASURES

First Aid Measures

General Recommendations:
Seek medical advice immediately in all cases
Personal protective equipment (respirator, gloves, etc.) required for rescuers of victims
In case of product splashing into eyes and face, treat eyes first
Decontaminate the victim first (HANDLE PATIENT AND ALL CONTAMINATED CLOTHING WITH HF RESISTANT GLOVES.)

* The effect of HF, i.e. the onset of pain, particularly in dilute solutions, may not be felt for up to 24 hours. It is important that workers have immediate access to the antidote (calcium gluconate) both on and off the worksite in order to apply it as soon as possible. Instructions should be given for the worker not to use the gel in the eye and the worker to still seek medical attention regardless of how minor the contact. The calcium combines with the fluoride to form the insoluble calcium fluoride thus preventing the fluoride from entering the intact skin and causing tissue damage.

Inhalation
Rescuers should wear respiratory protection. Remove the victim from the source of exposure. Transport subject lying down, with the head higher that the body, to a quiet, uncontaminated and well ventilated location. Four effervescent calcium gluconate tablets should be administered by mouth every two hours until the victim is admitted to hospital.

* Administer oxygen (2.5% calcium gluconate if available, can be oxygen nebulised with trained personnel) or cardiopulmonary resuscitation if necessary and as soon as possible. If patient is unconscious, give artificial respiration. Note: Mouth to mouth resuscitation is not recommended. Keep warm (blanket). Exposure to hydrofluoric acid may cause delayed reaction. Under no circumstances should the victim be allowed to return home or back to work until examined and discharged by a doctor because of the possibility of delayed symptoms.

Ingestion
Consult a physician immediately in all cases. Take to a hospital. Do NOT induce vomiting. Rinse mouth with water then give water to drink.

Skin
Seek immediate medical attention in all cases of skin contact no matter how minor. Immediately remove contaminated clothing. Flush skin under running water for 15 minutes. Apply calcium gluconate gel every 15 minutes until the pain subsides or until medical treatment is available. For large or severe burns, four effervescent calcium gluconate tablets should be administered by mouth every two hours until the victim is admitted to hospital. Keep warm (blanket).

Launder contaminated clothing and protective equipment before re-use.

Eye
Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Apply calcium gluconate eye drops. Seek immediate medical attention. Do NOT use calcium gluconate skin burn treatments in the eye.

First Aid Facilities
A First Aid Kit should be readily available in case of injury caused by this product. This kit should contain:

* 3% Calcium Gluconate gel (for skin injuries)
The kit should be transported to the attending medical doctor, along with a copy of this Material Safety Data Sheet.

Advice to Doctor
Inhalation: Acute respiratory failure may develop requiring airway support, 100% oxygen and positive end expiratory pressure treatment for pulmonary oedema. In addition, treatments and monitoring for systemic fluoride poisoning described above may be required.

* Skin contact: Calcium gluconate gel applied topically will often relieve the pain and reduce the injury. Exposure of subungal tissue may require the removal of the nail in order to treat adequately. Continued pain and destruction may be treated by subcutaneous administration of calcium.
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Systemic fluoride poisoning can result from dermal exposure, particularly with extensive exposures. The treatment described above needs to be considered. Early removal of skin may need to be considered in cases of extensive skin damage and refractory hypocalcaemia.

Continue application of the calcium gluconate gel to the skin for 15 minutes after the pain has completely subsided. This may require several hours but, providing improvement in the lesions and symptoms continues, massaging with the gel should be continued. In cases where a thick necrotic coagulum has formed, it may act as a barrier and prevent the penetration of the gel. This will be indicated by lack of improvement. In these cases, the necrotic tissue should be excised and the gel massaged into the base of the burn, taking usual aseptic precautions.

If the burn fails to respond to the calcium gluconate gel, injection of a sterile 10% solution of calcium gluconate into and under the burn should be considered. Relief of pain is an indication that sufficient solution has been injected. Because of this, an anaesthetic should not be given except in situations where the skin is tightly adherent to the underlying tissues. In these cases, a general anaesthetic should be given as local anaesthesia is contra-indicated.

Once symptoms have subsided, the burn should be covered with a sterile dressing. If the pain recurs, the patient should return for further symptomatic treatment.

In cases of large areas of skin contamination, for example, greater than 65 sq cm, six effervescent tablets, each containing 400 mg calcium and 20 mg ascorbic acid, should be given in water by mouth every two hours until the patient is admitted to hospital.

Serum calcium and / or magnesium may have to be replaced intravenously if indicated by clinical signs or by electrolyte monitoring. Systemic administration is by the slow intravenous route.

Eye contact: Irrigation with water and isotonic saline and obtain an ophthalmologic consultation.

Ingestion: Nasogastric suction with calcium gluconate solution may reduce systemic fluoride toxicity. The possibility of chemical burns to the gastrointestinal tract needs to be kept in mind. Acute systemic fluoride poisoning may cause profound hypocalcaemia (hypomagnesaemia) requiring intravenous calcium (magnesium) therapy. Electrocardiogram results and blood calcium / magnesium need to be monitored in acute systemic fluoride poisoning.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media
Use the extinguisher appropriate to the principal fire hazard or to the source of the fire.

If this product is involved in a fire, the water contained in it may evaporate, leaving a residue which may combust. During combustion, the residue may produce corrosive fumes of fluorides, as well as carbon monoxide and other unidentified organic compounds.

Special Protective Equipment for firefighters
If this product is involved in a fire, firefighters are to wear full protective equipment including self contained breathing apparatus, a full acid resistant suit, PVC gloves and enclosed footwear.

This product may liberate hydrogen gas on contact with metals, thus creating a fire and explosion hazard. Potential sources of ignition should be excluded from the immediate area.

Hazchem Code: 2XE

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal
Personal protective equipment as outlined in Section 8 must be worn. Do not walk through spilled material. Work upwind. Remove all sources of ignition. Increase ventilation. Evacuate all unnecessary personnel. If possible contain the spill. Place inert absorbent such as vermiculite, sand or dirt (but not sawdust) onto the material. Use clean non-sparking tools to collect the material and place into a suitable labelled HDPE container. Do not dilute material but contain. Mop up the remaining material and place into the same
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7. HANDLING AND STORAGE

Precautions for Safe Handling: Always wash hands before smoking, eating, drinking or using the toilet. Ensure that ventilation is adequate to maintain the work atmosphere below the exposure limits. Do not carry in open containers. Avoid generation of mists or aerosols.

Conditions for Safe Storage: Store in a cool, dry place away from direct heat and sunlight. Keep containers securely sealed and protected against physical damage. Store in dangerous goods approved plastic containers away from foodstuffs, oxidising agents and alkalis. Must be stored in accordance with AS3780.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards

<table>
<thead>
<tr>
<th>Name</th>
<th>STEL</th>
<th>TWA</th>
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<tbody>
<tr>
<td>Sulphuric acid</td>
<td>3 mg/m³</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Hydrogen Fluoride</td>
<td>2.6 mg/m³</td>
<td>3 ppm</td>
</tr>
</tbody>
</table>

Footnote: Peak limitation

Engineering Controls: Use only in well ventilated areas.

Personal Protective Equipment: Wear PVC gloves, chemical goggles and/or a face shield, an acid resistant apron and enclosed footwear. Wear an acid resistant respirator to AS 1716 if spray mists are produced during use. It is recommended that a shirt with long sleeves and long trousers be worn. Always wash skin, clothing and protective equipment after using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid

Appearance: Clear pink liquid, sharp acidic odour.

Boiling Point: 100°C

Solubility in Water: Complete

Specific Gravity: 1.035 @ 25°C

pH Value: 2.5

Evaporation Rate: As for Water

Volatile Component: 94% w/v

Flash Point: This product will not flash and does not support combustion.

Flammability: This product is not flammable under the conditions of use and does not support combustion. However, the product will liberate Hydrogen gas on contact with metals, thus creating a fire and explosion hazard. Potential sources of ignition should be excluded from the immediate area.

10. STABILITY AND REACTIVITY

Chemical Stability: Considered stable to heat and light. For extended storage life, store below 30°C and keep out of direct sunlight.

Incompatible Materials: Strong alkalis, strong oxidising agents, anionic surfactants.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Inhalation: Spray mists are corrosive to the nose and respiratory tract.

Ingestion: Corrosive to the mouth and digestive tract. May cause severe internal damage.

Skin: Corrosive to skin tissue and may cause severe chemical burns which are...
SEPTONE ALIBRITE

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Eye
extremely painful. Injuries caused by contact with this product may not become apparent for several hours. Corrosive and may cause severe and permanent damage to the eyes.

Chronic Effects
Chronic exposure to excessive quantities of gaseous hydrogen fluoride results in nausea, vomiting, loss of appetite and diarrhoea or constipation. Fluorosis and other chronic effects may result from significant acute exposures. Systemic fluoride poisoning can cause hypocalcaemia, which may lead to cardiac arrhythmias and death.

12. ECOLOGICAL INFORMATION
The cationic surfactant contained in this product is expected to be rapidly removed from effluents by absorption onto suspended particles and by interaction with the large excess of anionic surfactants commonly present in effluents. In the absence of the above factors, biodegradation will still occur reasonably rapidly at low concentrations.

* Sulfuric acid is a strong acid. It will ultimately react with calcium and magnesium in water to form sulphate salts. Sulphate-reducing bacteria are known to utilize sulphuric acid (IUCLID 2000). The toxicity of sulphuric acid to aquatic organisms is related to the effects on the pH of the medium, with the LC50 for crustaceans and fish reached when the pH decreases to 3.5.

* In water, hydrogen fluoride associates with various elements present in the water, mainly with aluminium in freshwater and calcium and magnesium in seawater, then the fluoride salts settle into the sediment where they are strongly attached to sediment particles.

* When deposited on land, fluorides are strongly retained by soil, forming strong associations with soil components. Leaching removes only a small amount of fluorides from soils. Fluorides may be taken up from soil and accumulate in plants. Animals that eat fluoride-containing plants may accumulate fluoride. Fluorides accumulate primarily in the bones or shell rather than in edible meat of animals.

13. DISPOSAL CONSIDERATIONS
Recycle if possible. Otherwise, dispose of large amounts in a chemical dump according to local statutory authority requirements. For small amounts, wash the product to the drain with a large excess of water.

Empty containers are recyclable. Note - empty containers are still regarded as containing dangerous goods unless the product is thoroughly rinsed (3 water rinses) from the container and the label is removed or destroyed.

14. TRANSPORT INFORMATION
Dangerous Goods of Class 8 Corrosives are incompatible in a placard load with any of the following: - Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are alkalis and Class 7.

U.N. Number 2922

Proper Shipping Name CORROSIVE LIQUID, TOXIC, N.O.S. - CONTAINS HYDROFLUORIC ACID & SULFURIC ACID

DG Class 8

Sub.Risk 6.1

Hazchem Code 2XE

Packaging Method 3.8.8

Packing Group II

EPG Number 8C1

IERG Number 37
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LIMITED QUANTITY - Max
Net Quantity/Pkge 5L
IMDG UN No 2922
IMDG Description CORROSIVE LIQUID, TOXIC, N.O.S. - (CONTAINS HYDROFLUORIC ACID AND SULFURIC ACID)
IMDG Hazard Class 8
IMDG Subsidiary Risk II
IMDG Pack. Group F-A, S-B
IMDG Marine Pollutant (MP) No

15. REGULATORY INFORMATION

Classified as hazardous according to criteria of NOHSC.
HAZARDOUS SUBSTANCE.
SCHEDULED POISON.

Classified as Hazardous according to criteria of National Occupational Health & Safety Commission, Australia (NOHSC).
Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule S6

Hazard Category Harmful, Irritant

AICS (Australia) All components listed.

Hydrofluoric acid has been investigated by NICNAS as a Priority Existing Chemical - refer PEC19.

Other Information
Full HSNO Classification Details:
6.1D, 6.3A, 6.4A, 6.9A, 8.1A, 9.3B(hydrofluoric acid <1%)
HSNO Approval Number: HSR002526.
Approved handler requirements:
Substances covered under this Group Standard will not require an approved handler.
Emergency Management Regulations:
Level 1: Labelling required when any amount is present in a workplace
Level 2: SDS is required when 0.1L is present in a work place. Fire extinguisher is not required.
Level 3: Emergency response plans, secondary containment required when 1,000L is stored.
Toxic signage required when 1,000L present in the workplace.
Corrosive signage required when 250L present in the workplace.
Ecotoxic signage required when 1,000L present in the workplace.
Tracking requirement: Not required

16. OTHER INFORMATION

Date of preparation or last revision of MSDS
Replaces SDS dated Sep 2010

Contact Person/Point

Australia:
24 HOUR EMERGENCY CONTACT (Chemical Safety International): 1 800 638 556
Poisons Information Centre (Australia): 13 11 26

New Zealand:
24 HOUR EMERGENCY CONTACT (Chemical Safety International): 0800 154 666
NZ National Poisons Centre (24 Hour): 0800 764 766

DISCLAIMER:
This Material Safety Data Sheet summarises at the date of issue to the best of our knowledge, the health and safety hazards of the product and how to safely handle and use the product.
As ITW AAMTech cannot anticipate or control the conditions under which the...
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- The product is used, customers are encouraged, prior to usage, to assess and control the risks associated with their use of the product.
- Data sheets from unauthorised sources may contain information that is no longer current or accurate.
- This MSDS is valid for 5 years from date of issue. However, this version may be revoked and revised at any time, and users should contact ITW AAMTech to ensure they are in possession of the latest version.

**Literature References**

- Approved Criteria for Classifying Hazardous Substances, 3rd Edition [NOHSC:1008(2004)]
- Australian Code for the Transport of Dangerous Goods by Road and Rail.
- International Maritime Dangerous Goods Code.
- International Air Transport Association Dangerous Goods Regulations.

...End Of MSDS...