

Material Safety Data Sheet

Issue Date: April 2014

ISSUED by Dalton International Limited

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Product Name: **SpillTech Acid Neutralising Absorbent**

This material is hazardous according to the criteria of the NOHSC

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

Product Name : SpillTech Acid Neutralising Absorbent
Product Use : Used as an acid neutralising absorbent.
Company Name: Dalton International Ltd.
Address : Unit 6, 23 Ash Road, Wiri, Auckland, NZ
Emergency Tel. : +64 9 263 3142
Telephone : +64 9 263 3142
Number/Fax : +64 9 262 0029

2. COMPOSITION / INFORMATION ON INGREDIENTS

Composition:

Sodium Carbonate, Mineral composed of Zeolite mixture, high absorbency polymeric compound and fillers

Chemical Characterization:

Solid

Ingredients:

| Ingredient | CAS No. | Proportion | Hazard Information |
|--|-------------|------------|--------------------|
| Sodium Carbonate | 497-19-8 | 35 – 55% | Hazardous |
| Mineral composed of Zeolites (Clinoptilolite, Mordenite) | | 20– 40% | Non-Hazardous |
| Mineral, Semectite | | 5 - 15% | Non-Hazardous |
| Mineral, Opal C | | 5 – 15% | Non-Hazardous |
| Acrylic Polymer | Proprietary | <3.0% | Non-Hazardous |
| Fillers | Mixture | <1.0% | Non-Hazardous |

3. HAZARDS IDENTIFICATION

This material is hazardous according to the criteria of the NOHSC.

Not classified as dangerous goods according to the Australian Dangerous Goods code (ADG Code) for transport by road or rail.

Risk Phrases:

May cause eye burns. Harmful if swallowed or inhaled. Causes irritation to the skin and respiratory tract.

Poisons Schedule:

None allocated.

Health Rating:

2 - Moderate.

Flammability Rating:

0 – None.

Reactivity Rating:

1 – Slight.

Contact Rating:

2 - Moderate.

Laboratory Protective Equipment:

Glasses, Lab Coat, Proper Gloves.

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4. FIRST AID MEASURES

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Ingestion:

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water.

Skin:

If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

Eye:

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

First Aid Facilities:

Eye wash and normal wash room facilities.

Advice to Doctor:

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Specific Hazards:

Not considered to be a fire hazard.

Explosion:

Not considered an explosion hazard but sodium carbonate may explode when applied to red-hot aluminium. Magnesium oxide reacts violently or ignites with interhalogens such as chlorine trifluoride (ClF₃) or bromine pentafluoride (BrF₅), and incandescently with phosphorus pentachloride (PCl₅).

Extinguishing Media:

Not combustible, however, if material is involved in a fire use: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder). Use appropriate fire extinguisher for surrounding environment.

Precautions in Fire:

Wear Self-Contained Breathing Apparatus (S.C.B.A) and full protective clothing to minimise skin exposure.

6. ACCIDENTAL RELEASE MEASURES

Avoid breathing in dust. Wear appropriate personal protective equipment as specified in Section 8. Work up wind or increase ventilation. Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water.

7. HANDLING AND STORAGE

Handling advice:

Avoid skin and eye contact. Avoid breathing in dust. Avoid handling which leads to dust formation.

Storage advice:

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances.

Not recommended for spills of hydrofluoric acid, fuming sulphuric acid, fuming nitric acid, or peroxy (per-O) organic acids.

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8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Occupational Exposure Limits:

No value assigned for this specific sodium carbonate by the National Occupational Health and Safety Commission. However, Exposure Standard(s) for particulates:

Nuisance dust:

8hr TWA = 10 mg/m³. As published by the National Occupational Health and Safety Commission. TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

Magnesium oxide – OHSA Permissible Exposure Limit (PEL): 15mg/m³.

ACGIH Threshold Limit Value (TLV): 10mg/m³, Inhalation fraction, A4 not classifiable as a human carcinogen.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Respiratory Protect:

Where sufficient ventilation is not available, avoid breathing dusts by wearing an AS1716 approved particulate filter respirator; however final choice of appropriate breathing protection is dependent upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices. Wear overalls, chemical goggles and impervious gloves. The use of Nitrile gloves is recommended. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

Eye Protection:

The use of chemical goggles or safety glasses with side shield protection is recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances including methods of handling or engineering controls as determined by appropriate risk assessments. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337- Eye Protectors for Industrial Applications.

Engineering Controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------------|---|
| Physical state | : Crystalline or Granular Sodium Carbonate |
| Colour | : White |
| Molecular Formula | : Na ₂ CO ₃ |
| Solubility | : Soluble in water. |
| Specific Gravity | : 2.532 (compressed solid); 1.04 (granular form, bulk density). |
| Flash Point (°C) | : Not applicable. |
| Solubility in water (g/L) | : 250 g/L @25°C |
| Melting Point/Range (°C) | : 851 |
| pH | : 11.3 (1% solution) |

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10. STABILITY AND REACTIVITY

Stability:

Stable under ordinary conditions of use and storage. Hygroscopic. Readily absorbs moisture from the air. Solutions are strong bases.

Hazardous Decomposition Products:

Oxides of carbon, sodium oxide and calcium oxide.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Reacts with strong acids. Sodium Carbonate: fluorine, aluminium, phosphorous pentoxide, sulphuric acid, zinc, lithium, lead, magnesium, iron, calcium hydroxide and 2,4,6-trinitrotoluene. Reacts violently with acids to form carbon dioxide. Magnesium oxide: acids, interhalogens, phosphorus pentachloride and calcium trifluoride. Calcium carbonate: acids, fluorine, magnesium with hydrogen. Mercury.

Conditions to Avoid:

Moisture, heat, dusting and incompatibilities.

11. TOXICOLOGICAL INFORMATION

| Ingredient | NTP Carcinogen | | IARC Category |
|--|----------------|-------------|---------------|
| | Known | Anticipated | |
| Sodium Carbonate (497-19-8) | No | No | None |
| Mineral composed of sodium potassium alumina silicate (93763-70-3) | No | No | None |

Sodium Carbonate:

Oral rat LD50: 4090mg/kg; inhalation rat LC50: 2300mg/m³/2H; irritation eye rabbit: 50mg severe; investigated as a mutagen, reproductive effector. Magnesium oxide: investigated as a tumorigen.

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion:

Sodium carbonate is only slightly toxic. No adverse effects expected, however, large amounts may cause nausea and vomiting. Magnesium oxide is slowly absorbed. Ingestion may cause rapid bowel evacuation.

Eye contact:

Sodium carbonate is an eye irritant. Contact may be corrosive to eyes and cause. Other conjunctival edema and corneal destruction. Risk of serious injury increases if eyes are kept tightly closed. Symptoms may appear from absorption of sodium carbonate into the bloodstream via the eyes.

Skin contact:

Contact with skin may result in irritation. Excessive contact may cause irritation with blistering and redness. Solutions may cause irritations or burns.

Inhalation:

Inhalation of dust may cause irritation to the respiratory tract. Symptoms from excessive inhalation of dust may include coughing and difficult breathing. Excessive contact is known cause damage to the nasal septum. Inhalation can cause a flu-like illness (metal fume fever). This 24 to 48 hour illness is characterised by chills, fever, aching muscles, dryness in mouth and throat and headache.

Chronic Exposure:

Prolonged or repeated skin exposure may cause sensitization. Excessive oral doses of calcium carbonate may produce alkalosis and hypercalcemia.

Aggravation of Pre-existing Conditions:

No information found.

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11. TOXICOLOGICAL INFORMATION - continued

Toxicological Data: Oral LD50 (rat): 4090 mg/kg. (1)

Eyes: Moderate irritant (rabbit). (1)

Chronic Effects: Prolonged or repeated exposure to this material may result in irritation to the eyes and respiratory tract.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Environmental Fate: No information found.

Environmental Toxicity: No information found.

13. DISPOSAL CONSIDERATIONS

Dispose of waste according to federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations. Refer to Waste Management Authority. Dispose of material through a licensed waste contractor.

14. TRANSPORT INFORMATION

Not classified as Dangerous Goods by the criteria of the NZS5433:2007

Marine Transport:

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport:

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

Hazchem Code:

None allocated.

Classification:

This material is hazardous according to criteria of NOHSC.

Xi:

Irritant.

Eye contact:

An eye irritant.

Risk Phrase(s):

R36: Irritating to eyes.

Safety Phrase(s):

S22: Do not breathe dust. S25: Avoid contact with eyes. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/39: Wear suitable protective clothing and eye/face protection.

This material is listed on the Australian Inventory of Chemical Substances (AICS).

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16. OTHER INFORMATION

NFPA Ratings: Health: 2, Flammability: 0, Reactivity: 0.

(1) 'Registry of Toxic Effects of Chemical Substances'. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2002.

Prepared by: Dalton International Limited P: +64 9 263 3142

Latest Revision: 02.11.05 – The format of the MSDS has been updated in accordance with the “National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition (NOHSC 2011-2003)”

This data is offered in good faith as typical values and are not product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

...End of MSDS...