



MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet meets or exceeds the requirements of the Canadian Controlled Product Regulations (WHMIS)

1. Product and Supplier Identification

Product: STARDUST Super Absorbent™

Product Use: Absorbent

Supplier: Paradigm International, Inc.
 45 Mirador
 Irvine, CA 92612
 USA
 Telephone: (714) 550 4999 Email: info@stardustspillproducts.com

2. Composition

Hazardous Ingredients	% (w/w)	Exposure Limits/ACGIH ¹	LD ₅₀	LC ₅₀
Amorphous Alumina Silicate (CAS No 93763-70-3)	99-100	ACGIH TLV-TWA: 10 mg/m ³ (total particulate)	13000 mg/kg (oral/mouse)	No data

¹ American Conference of Governmental Industrial Hygienists (ACGIH). Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area.

3. Hazards Identification

Routes of Entry:

Skin Absorption: No
 Skin Contact: Yes
 Eye Contact: Yes
 Ingestion: Yes, accidental
 Inhalation: Yes

Emergency Overview:

This product has been manufactured to reduce any likelihood of nuisance dust generation, however, should an application cause dusting, respiration may cause upper respiratory irritation. This may result in coughing and/or sneezing. As an inert nuisance dust, entry into eyes may cause a minor irritation which could result in tearing redness, or slight swelling. No chronic health effects are expected.

Acute Health Effects:

Inhalation:

Inhalation of nuisance dust may cause irritation to the upper respiratory tract. Exposure may cause sore throat, coughing, sneezing, and the production of phlegm in the throat. Nosebleeds may occur in cases of those with sensitive nose membranes due to abrasion of sensitive tissue.

Skin Contact:

Contact with skin may cause dryness.

Skin Absorption:

Not applicable

Eye Contact:

Contact with the eye will cause tearing and irritation from the “foreign” object in the eye. Rubbing of the eye may cause abrasion of the cornea.

Ingestion:

Ingestion may only occur by accident. Depending upon the quantity ingested, minor irritation to the gastrointestinal tract may occur.

Chronic Health Effects:

This product does NOT contain any amount of crystalline silica, therefore no chronic respiratory health effects are expected. Prolonged contact with skin may cause minor rash or redness due to drying properties of “Stardust”. Persons sensitive to inert dust may experience discomfort and wheezing if exposed to high airborne concentrations of this product.

Medical Conditions Aggravated by Exposure:

Respiratory problems may be aggravated by pre-existing lung disease such as bronchitis, emphysema, or chronic obstructive pulmonary disease.

WHMIS Symbols: None

4. First Aid Measures

Inhalation:

If irritation causes coughing or phlegm, remove to fresh air. Rinse mouth, then drink water to clear throat. Blow nose to evacuate dust. Call for medical assistance if coughing doesn't subside.

Skin Contact:

Wash skin to remove residue of the product. If an irritation occurs and persists, seek medical attention.

Eye Contact:

Do not allow victim to rub eye(s). Let eye(s) water naturally for a few minutes, having the victim move eyes to the right and then to the left, up and down. If particles are not dislodged by these actions, thoroughly flush eyes with running water for 15 minutes or until the foreign object is flushed out of the eye. NEVER remove particles manually from the eye(s). If irritation, pain, swelling, or lacrimation continues, get medical attention as soon as possible.

Ingestion:

Ingestion of particulate is not considered to be injurious to health. Do not give anything by mouth to a convulsing or unconscious person. Rinse mouth with water. Do not induce vomiting. If

vomiting occurs naturally, have victim lean forward with head between the knees, to reduce the possibility of aspiration of vomit. Give fluids to aid in the passing of the product through the digestive system. If patient shows discomfort, get immediate medical attention.

General Comments:

Good personal hygiene is essential. Avoid eating, smoking or drinking in work areas. Installation of an eye wash station in the work area is recommended.

5. Fire Fighting Measures

Flammability: No

Flash Point: Not applicable

Autoignition Temperature: Not applicable

Lower Explosive Limit: Not applicable

Upper Explosive Limit: Not applicable

Explosion Data:

Sensitivity to Impact:	Not sensitive to mechanical impact. Stable material.
Sensitivity to Static Discharge:	Insufficient data. Probably not sensitive to static discharge.

Hazardous Combustion Products: None known

Conditions to Avoid: None

Extinguishing Media: These materials are not flammable. Use any medium necessary to extinguish surrounding fire.

Fire Fighting Instructions: Evacuate area and fight fire from a safe distance or a protected area. Approach fire from upwind. Firefighters must wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

Leak and Spill Procedures:

Personal Protection: Wear adequate personal protection to prevent inhalation of dusts, contact with skin or eyes. See Section 8 for specific recommendations.

Environmental Precautions:

Prevent from spilling into waterways, sewers.

Cleanup Procedures:

Avoid harmful exposure to dusts. Only adequately trained personnel, wearing properly selected personal protective equipment and clothing described in Section 8, should be involved in the spill response and cleanup. Cleanup procedure should include methods that prevent the creation of airborne dusts. Vacuum should be equipped with air discharge filters (HEPA) to prevent discharge of particulate into the cleanup area.

For dry product, vacuum up and re-use if not contaminated. Wet product may be swept up if the creating of dust is unlikely. Contaminated absorbent must be handled with care observing the handling criteria described in the Material Safety Data Sheet for the contaminant. Dispose spilled material in accordance with all Federal, Provincial and Municipal regulations governing wastes.

7. Handling and Storage

Handling Procedures and Equipment:

Handle bags in a manner that will ensure minimal generation of dusts. Do not breathe dust, which may be generated accidentally. Follow safe work procedures and wear the appropriate personal protective equipment specified in Section 8. The workers must be instructed and trained in the safe work procedures.

Do not rely on sight to determine if dust is in the air. If dust cannot be kept below permissible limits, wear a high efficiency respirator with a N95 rating or better.

Storage Requirements:

Store in a dry environment away from incompatible materials such as Hydrofluoric acid (HF).

8. Exposure Controls, Personal Protection

Engineering Controls:

Engineering controls such as an enclosure or local exhaust ventilation with dust collection must be used to maintain airborne contaminations levels below the exposure limits, where practicable.

Respiratory Protection:

This product has been manufactured to prevent dusting when used as recommended. If an application causes dusting, then attention to the proper respiratory protection must be made. Only a qualified person should be responsible for respirator selection and maintenance. Respirators must be NIOSH approved and properly selected, maintained and used when working with this product. Knowledge of respiratory hazards and respiratory protection is essential to ensure appropriate selection of respirators. Use an approved high efficiency NIOSH dust respirator with a minimum N95 rating. In selecting the appropriate respirator must reflect the contaminant likely to be present in the spent and/or contaminated absorbent.

Skin Protection:

Wear clothing to prevent contact with skin.

Eye and Face Protection:

Wear safety glasses to prevent contact with eyes and make immediately available appropriate emergency eyewashing equipment (e.g. portable or plumbed) capable of flushing the eyes for at least 15 minutes.

9. Physical and Chemical Properties

Physical State:	Dry, white odourless powder
Appearance:	Powdery
Odour:	None
Odour Threshold:	Not applicable
pH:	6.5 to 7.5
Vapour Pressure:	Not applicable
Solubility in water:	Not soluble
Solubility in other Liquids:	Moderately soluble in sodium hydroxide (less than 10%); slightly soluble in mineral acids (less than 3%)
Vapour Density:	Not applicable
Melting Point:	>1093°C
Boiling Point:	Not applicable
Freezing Point:	Not applicable
Density :	0.269 gm/cm ³

Specific Gravity: 0.08 – 0.20 (Water = 1)
Coefficient of Water/oil Not applicable
Distribution:
Evaporation Rate: Not applicable
Volitile Organic Compounds: None

10. Stability and Reactivity

Chemical Stability: This product is stable.
Hazardous Polymerization: Will not occur.
Incompatibility: Yes. Hydrofluoric acid
Reactivity: Yes. Amorphous alumina silicate will dissolve in hydrofluoric acid and produce a corrosive gas, silicon tetrafluoride

Hazardous Decomposition Products: None

11. Toxicological Information

Effects of Acute Exposure: See Section 3
Effects of Chronic Exposure: See Section 3
Irritancy: Yes. See Section 3.
Skin Sensitization: None reported
Respiratory Sensitization: None reported
Neurotoxicity: No
Carcinogenicity: No animal or human information is available. Probably not carcinogenic. The International Agency for Research on Cancer (IARC) has not evaluated the carcinogenicity of this chemical. The American Conference of Governmental Industrial Hygienists (ACGIH) has designated this chemical as not classifiable as a human carcinogen. The US National Toxicology Program (NTP) has not listed this chemical in its report on carcinogens.
Embryotoxicity: No animal or human information is available. Probably not embryotoxic.
Teratogenicity: No animal or human information is available. Probably not teratogenic.
Reproductive Toxicity: No animal or human information is available. Probably not a reproductive hazard.
Mutagenicity: No specific information is available. Probably not mutagenic.
Synergistic Products: None reported

12. Ecological Information

Environmental Toxicity: This product is chemically inert in the environment, therefore no environmental impact for uncontaminated product is expected. In the environment this product has no soil mobility, aquatic mobility. No bioaccumulation will occur.

Biodegradability: No

13. Disposal Considerations

This material may be disposed of at a landfill, if uncontaminated. For contaminated absorbent, review federal, provincial, and local government requirements for the contaminant prior to disposal. Store material for disposal as indicated in Storage Conditions.

14. Transport Information

Canadian Transportation of Dangerous Goods Regulations:	Not regulated
International Air Transport Association (IATA):	Not regulated
International Maritime Organization (IMO):	Not regulated
United States DOT (49CFR):	Not regulated

15. Regulatory Information

CANADIAN FEDERAL REGULATIONS:

CEPA, DOMESTIC SUBSTANCES LIST: Listed

WHMIS CLASSIFICATION: Does not meet criteria

16. Other Information

Original Preparation Date: June 07, 2006

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Disclaimer: This Material Safety Data Sheet was prepared in accordance with criteria and requirements of the Hazardous Products Act and the Controlled Products Regulations using information provided by PARADIGM INTERNATIONAL, INC. and other sources including CCINFO (Chemical Information published by the Canadian Centre for Occupational Health and Safety). The information in the Material Safety Data Sheet is offered for your consideration and guidance when exposed to this product. The data in this MSDS does not apply to use with any other product or in any other process.

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