



HYDROSIL
INTERNATIONAL LTD.

Hydrosil International LTD.
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HS-600

HS-600 Safety Data Sheet

Revision date : 2024

Section 1: Product and Company Information



Product Name	Product Type	Company ID	Emergency Phone Number	Address	Common Use of Product
HS-600	Zeolite	Hydrosil International Ltd.	847-844-0680	125 Prairie Lake Rd. East Dundee, IL 60018	Filtration

Section 2: Hazard(s) Identification

OSHA Regulatory Status: Not Regulated

Health Effects: Prolonged over exposure to dust can produce skin and eye irritation

2.1 Classification of the substance or mixture (GHS-US)

Pictogram	Signal Word	Hazard Statement
	Warning	Eye Irritation 2B H320; Acute Oral Tox 4, H302; Respiratory Irritation H335
	Oxidizer	The material is not combustible. NOTE: This material contains an oxidizing substance (potassium permanganate).The material is considered to have no oxidizing properties that should be classified as <i>not oxidizing</i> and <i>Not a Division 5.1</i> following UN Handbook. Ox. Sol. 2, H272

2.2 – Precautionary statements (GHS-US) :

P210 : Keep away from heat/sparks/open flames/hot surfaces. – No smoking
 P220 : Keep/Store away from clothing/combustible materials
 P221 : Take any precaution to avoid mixing with combustibles
 P261 : Avoid breathing dust/fume/gas/mist/vapours/spray
 P271 : Use only outdoors or in a well-ventilated area
 P280 : Wear protective gloves/protective clothing/eye protection/face protection
 P304+P340 : IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P312 : Call a POISON CENTER/doctor if you feel unwell
 P370+P378 : In case of fire: Use for extinction
 P403+P233 : Store in a well-ventilated place. Keep container tightly closed
 P405 : Store locked up
 P501 : Dispose of contents/container

2.3 : Other Hazards

No additional information available

2.4 : Unknown acute toxicity (GHS US)

No data available

Section 3: Composition/Information on Ingredients

Name	Product Identifier	Percent By Weight (%)	GHS-US Classification
Zeolite	(CAS No.) 1318-02-1	79.5-81.5	STOT SE 3, H335
Water	(CAS No.) 7732-18-5	12.5-14.5	Not Classified
Potassium Permanganate	(CAS No.) 7722-64-7	6-8	Ox. Sol. 2, H272 Acute Tox. 4 (Oral), H302

Section 4: First-Aid Measures

4.1 : Description of first aid measures

Inhalation First Aid	Remove person to fresh air. If not breathing, administer CPR or artificial respiration. Get immediate medical attention.
Skin Contact First Aid	Remove contaminated clothing. Contact with skin may leave a brown stain of insoluble manganese dioxide. This can be easily removed by washing with a mixture of equal volumes of household vinegar and 3% hydrogen peroxide, followed by washing with soap and water. If skin reddening or irritation develops, seek medical attention.
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists get medical attention.

First Aid	
Ingestion First Aid	If the material is swallowed, get immediate medical attention or advice. DO NOT induce vomiting unless directed to do so by medical personnel.

4.2 – Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes eye irritation.

Symptoms/injuries after ingestion : May be harmful if swallowed.

4.3 : Indication of any immediate medical attention and special treatment needed

No additional information available

Section 5: Fire-Fighting Measures

5.1 : Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

5.2 : Special hazards arising from the substance or mixture

The mixture is not combustible. This material contains an oxidizing substance (potassium permanganate). The material is considered to have no oxidizing properties that should be classified as “not oxidizing” and “Not a Division 5.1” following United Nations (UN) Handbook. Testing 34.4.1 confirms that this material is not a Division 5.1 material.

5.3 : Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear (chemical protective clothing and breathing apparatus).

Section 6: Accidental Release Measures

6.1 : Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with the skin and the eyes.

For non-emergency personnel : No additional information available

For emergency responders : No additional information available

6.2 : Environmental precautions

If the product comes in contact with water the potassium permanganate will “wash” off the zeolite mineral and the potassium permanganate will be miscible in water. Stop leak if possible. Dike the spilled material, where this is possible. To clean up potassium permanganate solutions, follow either of the following two options:

Option 1- Dilute to approximately 6% with water, and then reduce with sodium thiosulfate, a bisulfite or ferrous salt solution. The bisulfite or ferrous salt may require some dilute sulfuric acid (10% wt/wt) to promote reduction. Neutralize with sodium carbonate to neutral pH, if acid was used. Decant or filter and deposit sludge in approved landfill.

Option 2- Absorb with inert media like diatomaceous earth or inert floor dry, collect into a drum and dispose of properly. Do not use saw dust or other incompatible media. Disposal of all materials shall be in compliance with federal, state and local regulations.

6.3 : Methods and material for containment and cleaning up

For containment : If possible, stop flow of product.

Methods for cleaning up : Shovel or sweep up and put in a closed container for disposal.

6.4 : Reference to other sections

No additional information available

Section 7: Handling and Storage

7.1 : Precautions for safe handling

Avoid generation of dust.

Avoid exposing material to water.

Wear proper PPE.

Avoid prolonged contact with eyes and skin.

7.2 : Conditions for safe storage, including any incompatibilities

Storage conditions : Protect containers from physical damage. Keep container tightly closed and store in dry, cool, well-ventilated area. Protect material from water and contaminated gases.

7.3 : Specific end use(s)

No additional information available

Section 8: Exposure Controls/Personal Protection

8.1 : Control parameters

No additional information available

8.2 : Exposure controls/Person Protection

Appropriate engineering controls : Local exhaust and general ventilation must be adequate to meet exposure standards.

Hand protection : Use impervious gloves to minimize skin contact.

Eye protection : Safety glasses.

Skin and body protection : Wear suitable working clothes.

Respiratory protection : If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Section 9: Physical and Chemical Properties

9.1 : Information on basic physical and chemical properties

Physical state : Solid

Appearance : Granules

Color : Purple

Odor : No data available

Odor threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Self ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available
Relative density : 59-61 lb/ft3
Solubility : No data available
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosive limits : No data available

Section 10: Stability and Reactivity

10.1 : Reactivity

Under normal conditions the product is stable. The product is not reactive with water.

10.2 : Chemical stability

Stable under normal conditions.

10.3 : Possibility of hazardous reactions

None.

10.4 : Conditions to avoid

Heat sources, open flames, or other ignition sources. Liquid water due to the active ingredient coming off of the material.

10.5 : Incompatible materials

Strong oxidizers or acids.

10.6 : Hazardous decomposition products

None.

Section 11: Toxicological Information

11.1 : Information on toxicological effects

Acute toxicity : Not classified

Zeolite (CAS No. 1318-02-1)	
LD50 Oral Rat	5000 mg/kg

LD50 Dermal Rabbit	>2000 mg/kg
LC50 Inhalation Rat	2.4 mg/l (Exposure Time: 1Hr
ATE (Oral)	5000 mg/kg
Potassium Permanganate(CAS No. 7722-64-7)	
LD50 Oral Rat	750 mg/kg

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Zeolite (CAS No. 1318-02-1) IARC Group: 3

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Section 12: Ecological Information

12.1 : Toxicity

Zeolite (CAS No. 1318-02-1)	
LC50 Fishes 1	1800 mg/l (Exposure time: 96 h – Species: Brachydanio rerio [semi-static])
EC50 Daphnia 1	1000 – 1800 mg/l (Exposure time: 48 h – Species: Daphnia magna)
EC50 Other Aquatic Organisms 1	18 mg/l (Exposure time: 96 h – Species: Desmodesmus subspicatus)
LC50 Fish 2	3200 – 5600 mg/l (Exposure time: 96 h – Species: Oryzias latipes [semi-static])
Potassium Permanganate (CAS No. 7722-64-7)	
LC50 Fishes 1	3.3 – 3.93 mg/l (Exposure time: 96 h – Species: Carassius auratus [static])
LC50 Fish 2	2.97 – 3.11 mg/l (Exposure time: 96 h – Species: Cyprinus carpio)

12.2 : Persistence and degradability

No additional information available

12.3 : Bioaccumulative potential

Potential to bioaccumulation is low.

12.4 : Mobility in soil

No additional information available

12.5 : Other adverse effects

No additional information available

Section 13: Disposal Considerations

13.1 : Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations. Spent filter media that has removed toxic chemicals should be examined further for specific hazards.

Section 14: Transport Information

In accordance with DOT / ADR / RID / ADNR / IMDG / ICAO / IATA

14.1 : UN number

Not applicable

14.2 : UN proper shipping name

Not applicable

14.3 : Special precautions for user

None

The material is not combustible. This material contains an oxidizing substance (potassium permanganate).The material is considered to have no oxidizing properties that should be classified as *not oxidizing* and *Not a Division 5.1* following UN Handbook

Section 15: Regulatory Information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Section 311-313: This product is not listed.

OSHA: Not regulated. See Table Z-1 of 29CFR1910.1000, Limits for Air Contaminates.

CERCLA: CAS No. 722-64-7 Potassium Permanganate 100 lbs

TSCA: CAS No. 722-64-7 Potassium Permanganate

RCRA: None listed.

Review local, state, and federal regulations.

Section 16: Other Information

Full text of H-phrases:

Acute Tox. 3 (Oral)	0.65
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Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Irrit. 2	Skin corrosion/irritation Category 2
H301	Toxic if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
Ox. Sol 2	Oxidizing Solids, Category 2

NFPA health hazard : 1 – Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 1 – Must be preheated before ignition can occur.

NFPA reactivity : 0 – Normally stable, even under fire exposure conditions, and are not reactive with water

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