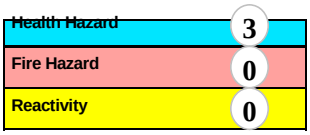
Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment
		 See Section 15.

Section 1. Chemical Product and Company Identification

Common Name/ Trade Name	**Sodium metasilicate pentahydrate**
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248
Commercial Name(s)	Not available.
Synonym	Disodium silicate pentahydrate; Sodium silicate pentahydrate; Disodium trioxosilicate pentahydrate
Chemical Name	Silicic acid (H2SiO3), disodium salt, pentahydrate
Chemical Family	Not available.
Chemical Formula	Na2SiO3.5H2O
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248

Catalog Number(s).	S1433
CAS#	10213-79-3
RTECS	VV9275000
TSCA	TSCA 8(b) inventory: No products were found. It exempt from TSCA 8(b) Inventory listing since it is a hydrate. However the anhydrous form (CAS no. 6834-92-0) is listed on the TSCA 8(b) inventory.
CI#	Not available.

IN CASE OF EMERGENCY
CHEMTREC (24hr) 800-424-9300

CALL (310) 516-8000

Section 2.Composition and Information on Ingredients

		Exposure Limits			
Name	**CAS #**	**TWA (mg/m^3)**	**STEL (mg/m^3)**	**CEIL (mg/m^3)**	**% by Weight**
1) Sodium metasilicate pentahydrate	10213-79-3				100

Toxicological Data on Ingredients

Sodium metasilicate pentahydrate:
ORAL (LD50): Acute: 847 mg/kg [Rat].

Section 3. Hazards Identification

Potential Acute Health Effects

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of inhalation. The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Continued on Next Page

Potential Chronic Health Effects	**CARCINOGENIC EFFECTS**: Not available. **MUTAGENIC EFFECTS**: Not available. **TERATOGENIC EFFECTS**: Not available. **DEVELOPMENTAL TOXICITY**: Not available. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Serious Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	Non-flammable.
Auto-Ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	Not applicable.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: **Neutralize the residue with a dilute solution of acetic acid.**
Large Spill	Corrosive solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. **Neutralize the residue with a dilute solution of acetic acid.**

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Section 7. Handling and Storage

Precautions	Keep container dry. Do not ingest. Do not breathe dust. 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. Keep away from incompatibles such as metals, acids.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 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.
Personal Protection	Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid.	**Odor**	Not available.
Molecular Weight	212.14 g/mole	**Taste**	Not available.
pH (1% soln/water)	12.4 [Basic.]	**Color**	White. Grayish white.

Boiling Point	Not available.
Melting Point	72.2℃ (162℉)
Critical Temperature	Not available.
Specific Gravity	1.75 (Water = 1)
Vapor Pressure	Not applicable.
Vapor Density	Not available.
Volatility	Not available.
Odor Threshold	Not available.
Water/Oil Dist. Coeff.	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	See solubility in water.
Solubility	Easily soluble in cold water.

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Incompatible materials
Incompatibility with various substances	Reactive with metals, acids.
Corrosivity	Extremely corrosive in presence of aluminum. Slightly corrosive in presence of copper. Non-corrosive in presence of glass, of stainless steel(304), of stainless steel(316).
Special Remarks on Reactivity	Solutions of sodium metasilicate, when heated and acidified, are hydrolyzed to free sodium and silicic acid. Corrosive to metals like zinc, tin, lead. It forms hydrogen gas on contact with metals

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Special Remarks on Corrosivity	Corrosive to metals like zinc, tin, lead.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 847 mg/kg [Rat].
Chronic Effects on Humans	Not available.
Other Toxic Effects on Humans	Very hazardous in case of skin contact (irritant), eye contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of inhalation.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	May cause adverse reproductive effects based on animal test data.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Corrosive. Causes severe irritation with redness and pain, and burns. Eyes: Corrosive. Causes severe irritation with redness, conjuctivitis, pain, lachrymation, and burns. Causes corneal damage with opacificaton. May cause blindness. Inhalation: Causes irritation of the respiratory tract. May cause chemicals burns to the respiratory tract. Ingestion: Corrosive. Harmful if swallowed. Causes nausea, vomiting, severe gastrointestinal tract irritation. pain in the throat, abdominal pain, drooling, difficulty swallowing, May cause ulceration and bleeding from the stomach and small intestine. May cause oral, esophageal or gastric burns. May cause burns of the epiglottis, and vocal cords, and laryngeal obstruction. May cause esophageal or gastric perforation. It may affect the kidneys. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact causes allergic contact dermatitis. Ingestion: Prolonged or repeated ingestion may lead to inflammation and ulceration of the mouth. Prolonged or repeated ingestion may affect the kidneys

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information

DOT Classification	Class 8: Corrosive material
Identification	UNNA: 3253 : Disodium trioxosilicate PG: III
Special Provisions for Transport	Not available.

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DOT (Pictograms)

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations

No products were found.

California Proposition 65 Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
EINECS: This product is not on the European Inventory of Existing Commercial Chemical Substances.
Canada: Not listed on Canadian Domestic Substance List (DSL) or Canadian Non- Domestic Substance List (NDSL).
China: Listed on National Inventory.
Japan: Listed on National Inventory (ENCS).
Korea: Not listed on National Inventory (KECI).
Philippines: Listed on National Inventory (PICCS).
Australia: Not listed on AICS.

Other Classifications

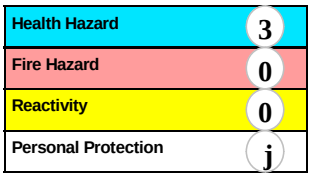
WHMIS (Canada) CLASS E: Corrosive solid.

DSCL (EEC)

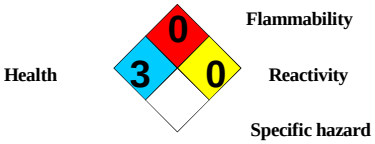
R34- Causes burns.
R37- Irritating to respiratory system.

S13- Keep away from food, drink and animal feedingstuffs.
S24/25- Avoid contact with skin and eyes.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.)

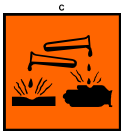


National Fire Protection Association (U.S.A.)



WHMIS (Canada) (Pictograms)

DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)

ADR (Europe) (Pictograms)

Protective Equipment

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Gloves.

Synthetic apron.

Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Splash goggles.

Section 16. Other Information

MSDS Code	**S4440**
References	Not available.
Other Special Considerations	Major Uses: Chemical intermediate for silica gel catalysts; in fireproofing mixtures; Min laundry, dairy, metal, and floor cleaning; deinking paper; additive in soaps and synthetic detergents; ingredient in adhesives; bleaching aid

Validated by Sonia Owen on 12/9/2011.

Verified by Sonia Owen.

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CALL (310) 516-8000

Notice to Reader