



**Canada ColorsTM
and Chemicals Limited**

**152 Kennedy Road South
Brampton, Ontario
Canada
L6W 3G4**

General Inquiry Number: (905) 459-1232

**Material Safety Data Sheet
Attached**



This product is distributed by **Canada Colors and Chemicals Limited**
 General Inquiry Phone Number: (905) 459-1232
 24 Hour Emergency Phone Number (416) 444-2112

CCC Product Code: 867560

CCC Product Name: SODIUM THIOSULFATE PENTAHYDRATE

Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table border="1"> <tr><td style="background-color: cyan;">Health Hazard</td><td style="text-align: center;">2</td></tr> <tr><td style="background-color: pink;">Fire Hazard</td><td style="text-align: center;">0</td></tr> <tr><td style="background-color: yellow;">Reactivity</td><td style="text-align: center;">1</td></tr> </table>	Health Hazard	2	Fire Hazard	0	Reactivity	1	 See Section 15.
Health Hazard	2							
Fire Hazard	0							
Reactivity	1							

Section 1. Chemical Product and Company Identification		<i>Page Number: 1</i>
Common Name/ Trade Name	Sodium Thiosulfate Pentahydrate	Catalog Number(s). S 13102, S 13105 S 13104, S 13106
Manufacturer	SAMIRIAN CHEMICALS INC. 1999 S. BASCOM AVE., SUITE #515 CAMPBELL, CA 95008	CAS# 10102-17-7
Commercial Name(s)	Sodium Thiosulfate Pentahydrate	RTECS WE6660000
Synonym	Sodium Hyposulfite, Disodium Salt Pentahydrate	TSCA TSCA 8(b) inventory: Sodium thiosulfate pentahydrate
Chemical Name	Thiosulfuric acid, disodium salt, pentahydrate	CI# Not available.
Chemical Family	Not available.	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300
Chemical Formula	Na ₂ S ₂ O ₃ .5H ₂ O	
Supplier	SAMIRIAN CHEMICALS INC. 1999 S. BASCOM AVE., SUITE #515 CAMPBELL, CA 95008	

Section 2. Composition and Information on Ingredients					
Name	CAS #	<i>Exposure Limits</i>			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Sodium thiosulfate pentahydrate	10102-17-7				100
Toxicological Data on Ingredients					
Sodium thiosulfate pentahydrate Intravenous (LD50): 2350 mg/kg [Mouse]; >2500 mg/kg [Rat] Oral (TDLo): 300 mg/kg [Human]					

Section 3. Hazards Identification	
Potential Acute Health Effects	Hazardous in case of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant, permeator). Skin contact may cause irritation. Eye contact may cause irritation and burns. Inhalation may result in irritation to mucous membranes and upper respiratory tract, coughing, chest pains, and difficulty breathing. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and purging.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: None. MUTAGENIC EFFECTS: None. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: None. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.

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Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Do not use an eye ointment. Seek medical attention.
Skin Contact	Remove contaminated clothing and shoes. Wash immediately with running water and non-abrasive soap for at least 15 minutes. Be particularly careful to clean folds, crevices, creases and groin. Wash contaminated clothing before reusing. If irritation persists, seek medical attention.
Serious Skin Contact	Remove clothing, jewelry, and shoes. Wash with soap and water for at least 15 minutes. Seek immediate medical attention.
Inhalation	Allow the victim to rest in fresh air. Monitor for respiratory distress. If breathing is difficult, give oxygen. Seek immediate medical attention.
Serious Inhalation	If not breathing, give artificial respiration or mouth-to-mouth respiration. Seek immediate medical attention.
Ingestion	Loosen tight clothing such as a collar, tie, belt or waistband. Rinse mouth with lots of water. Give lots of water or milk to drink. Seek immediate medical attention.
Serious Ingestion	Do not give anything by mouth to an unconscious or convulsing person. If victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

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	Decomposes to carbon oxide, sulfur oxides, sodium, sodium oxides, hydrogen sulfide, sodium sulfide.
Fire Hazards in Presence of Various Substances	Violent reactions with oxidizing materials, highly oxygenated or halogenated solvents, organic compounds containing reducible functional groups. See Section 10.
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	Use dry chemical, carbon dioxide, foam, or water spray. Wear chemically protective clothing and approved respirator.
Special Remarks on Fire Hazards	Heating above 100°C yields a flammable residue of sodium sulfide.
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. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Evacuate area. Call the fire department. Do not touch damaged container or spilled material. Do not empty into drains. Use a shovel to put the material into a convenient waste disposal container. Avoid raising dust. Call local, state, and federal authorities for assistance and disposal.

Section 7. Handling and Storage

Precautions	Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid raising dust. Keep from contact with clothing and other materials.
Storage	Keep container tightly closed. Keep away from incompatible materials. Store in a cool, dry place.

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. Safety shower and eye wash station are necessary.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Rubber boots.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. 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 established.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid.	Odor	Odorless.
Molecular Weight	248.19 g/mole	Taste	Not available.
pH (1% soln/water)	7 [Neutral.]	Color	White.
Boiling Point	Decomposes. (45°C or 113°F)		
Melting Point	45°C (113°F)		
Critical Temperature	Not available.		
Specific Gravity	1.73 (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	Partially soluble in cold water.		

Section 10. Stability and Reactivity Data

Stability	The product is stable under normal conditions.
Instability Temperature	Not available.
Conditions of Instability	High temperatures, sparks, open flames, and all other sources of ignition and contamination.
Incompatibility with various substances	Oxidizing materials, highly oxygenated or halogenated compounds, acids, ammonia, water reactive materials such sodium, mercury salts, lead, silver, iodides, iodine, mercury, and organic compounds with reducible functional groups.
Corrosivity	Non-corrosive in presence of glass.

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Special Remarks on Reactivity	Not available.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Eye contact. Inhalation. Ingestion. Skin contact.
Toxicity to Animals	Intravenous (LD50): 2350 mg/kg [Mouse]; >2500 mg/kg [Rat] Oral (TDLo): 300 mg/kg [Human]
Chronic Effects on Humans	The substance is toxic to lungs, mucous membranes.
Other Toxic Effects on Humans	Hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant, permeator). May be harmful if inhaled, swallowed or absorbed through skin.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on other Toxic Effects on Humans	Considered to be a low hazardous material. Considered to be Generally Recognized As Safe (GRAS) by FDA for use as a food additive according to prescribed conditions.


Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	BOD5 = 0.2 g/g; COD = 0.4 g/g
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 more toxic.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal	If this product becomes a waste it should be determined if the waste meets the criteria of a hazardous waste. Dispose according to all applicable local, state, and federal requirements. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.
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Section 14. Transport Information

DOT Classification	Not a DOT controlled material (United States).
Identification	Not applicable.
Special Provisions for Transport	Not applicable.
DOT (Pictograms)	

Section 15. Other Regulatory Information and Pictograms

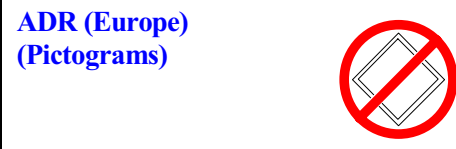
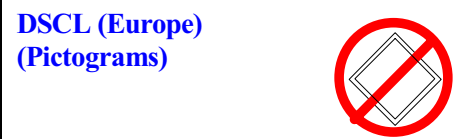
Federal and State Regulations TSCA 8(b) inventory: Sodium thiosulfate pentahydrate

California Proposition 65 Warnings Does not require warning under CA Prop 65.


Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). SARA Section 311 and 312: The product is to be reported under the Immediate (Acute) Health Hazard EPA hazard categories.


Other Classifications
WHMIS (Canada) CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
DSCL (EEC) Not available.


HMIS (U.S.A.)	Health Hazard 2	National Fire Protection Association (U.S.A.)	Health		Flammability	
	Fire Hazard 0					Reactivity
	Reactivity 0					
	Personal Protection E					




Protective Equipment

 Gloves.

 Lab coat.

 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** S13100

References Chemical Carcinogenesis Research Information System, U.S. National Library of Medicine, Bethesda, Maryland, toxnet.nlm.nih.gov.
Manufacturer's Safety Data Sheet
Specialized Information Services, U.S. National Library of Medicine, Department of Health and Human Services, chem.sis.nlm.nih.gov.
MSDS Solutions, www.msds.com

Other Special Considerations Not available.

Validated by Bryan Liao on 6/16/2009**CALL 1.800.996.8010****Notice to Reader**

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Samirian Chemicals Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.