For a general reduction of negative fog, dilute Wc ing Solution A with an equal volume of water and use the above incedure.



### HORMULARY INC.

PO Box 950 • Condon MT 59826 • 406-754-2891 • FAX : 96-754-2896 E-MAIL formulary @montana.com

Cat. No. 05-0010

### ORMULARY INC

PO Box 950 • Condon MT 59826 • 406-754-2891 • FAX 406-754-2896 E-MAIL formulary@montana.com

# FORMULARY REDUCER 1 FOR NEGATIVES

To make 1/2 liter of potassium ferricyanide solution and 2 liters of sodium thiosulfate (hypo) solution.

The chemicals in Reducer 1 are used to prepare two stock solutions. Depending on how the stock solutions are mixed and used, Reducer 1 can be used for either sub-proportional or proportional negative reduction. Sub-proportional reduction removes silver density from the low-density areas faster than from the high-density areas, thus increasing the negative's contrast. Proportional reduction removes silver density from all areas, thus improving overdeveloped negatives.

Using a reducer correctly is an art and requires experience. We strongly urge you to practice with this reducer using scrap negatives before attempting reduction of a negative of value.

## CHEMICALS CONTAINED IN THIS KIT

Chemical	Amount
Potassium Ferricyanide	37.5 g
Sodium thiosulfate, anhydrous	370 g

### CHEMICAL SAFETY

All chemicals are dangerous and must be treated with respect. Please read the chemical warnings on each package. None of the chemicals in Reducer 1 need special attention.

POTASSIUM FERRICYANIDE: In spite of the fact that this compound contains cyanide, it is not particularly toxic. The reason is that the cyanide groups are bound to the iron atom and are not free to act as a poison.

Consult with local sewer and water authorities regarding proper disposal of darkroom chemicals in your area.

The user assumes all risks upon accepting these chemicals. IF FOR ANY REASON YOU DO NOT WISH TO ASSUME ALL RISKS, PLEASE RETURN THE CHEMICALS WITHIN 30 DAYS FOR A FULL REFUND.

FORMULARY REDUCER 1

PHOTOGRAPHERS' FORMULARY

CAT. NO. 05-0010

10-1010

### Material Safety Data Sheet

### WEGO CHEMICAL & MINERAL CORP

239 Great Neck Road

Great Neck, NY 11021

Ph: (516) 487 3510; Fax: (516) 487 3794; email: sales@wegochem.com

Date of Revision: 3/2005

Potassium Ferricyanide

### Section 1 - Chemical Product and Company Identification

Product/Chemical Name: POTASSIUM FERRICYANIDE

Chemical Formula: K<sub>3</sub>Fe(CN)<sub>0</sub> CAS Number: 13746-66-2

Other Designations: Potassium Hexacyanoferrate (III); Red Prussiate of Potash

Derivation:

General Use: Used in photography, electroplating, and as a mild oxidizing agent in organic synthesis.

Emergency Telephone: 1-800-424-9300 (Chemtrec)

### Section 2 - Composition / Information on Ingredients

ſ	Ingredient Name	CAS Number	EINECS/ELINCS	% wt or % vol	
	Potassium Ferricyanide	13746-66-2	237-323-3	99	

### Trace Impurities:

	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH	
Ingredient	TWA	STEL	TWA	ŞTEL	TWA	STEL	IDLH	
Potassium Ferricyanide	5 mg CN/m <sup>3</sup>	none estab.	5 mg CN/m <sup>1</sup> (NaCN and	none estab.	5 mg CN/m <sup>3</sup>	none estab.	5 mg CN/m <sup>3</sup> (NaCN and	
2 41110) (1.1100			KCN, Specifically)		-		KCN, Specifically)	

### Section 3 - Hazards Identification

### 会会会会 Emergency Overview 会会会会 CAUTION! MAY BE HARMFUL IF SWALLOWED OR INHALED. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

F 1 R 1 PPE†

**HMIS** 

Η

### Potential Health Effects

Primary Entry Routes: Skin contact or absorption, inhalation.

Target Organs: Cardiovascular system, CNS, liver, kidneys, skin.

Acute Effects

Inhalation: May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath. Cyanide anions (CN ) inhibit the body cells' use of oxygen by causing metabolic asphyxiation. Prolonged anoxia (reduced level of oxygen in the blood) causes central nervous system (CNS) damage. Early symptoms of exposure to potassium ferricyanide are typical CNS effects like weakness, headache, and confusion. Continued exposure causes a weak and irregular heartbeat, unconsciousness, convulsions, coma, and death. Cyanides are fast acting and highly poisonous by ingestion. As little as a few breaths of HCN vapor may stop respiration and cause collapse.

Eye: May cause irritation, redness and pain.

Skin: May cause irritation with redness and pain.

Ingestion: Large doses may cause gastrointestinal upset with nausea, vomiting, diarrhea, and possible cramping.

Carcinogenicity: Potassium ferricyanide is not listed as a carcinogen by the NTP, IARC, or OSHA.

Medical Conditions Aggravated by Long-Term Exposure: Diseases of kidneys, heart, lungs, and the CNS.

Chronic Effects: Dermatitis and skin ulcers.

### Section 4 - First Aid Measures

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally.

Get medical attention if irritation persists.

Potassium Ferricyanide

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Ingestion: Call a poison control center. Never give anything by mouth to someone who is unconscious or convulsing.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Comments: Preparation for emergency first aid treatment involving potassium ferricyanide or any cyanide salt must be done before the exposure situation occurs. All workers involved with cyanides must receive detailed training in safe handling, first aid procedures, and the use of commercially available cyanide antidote kits.

### Section 5 - Fire-Fighting Measures

Flash Point: Not Combustible

Flash Point Method: Burning Rate:

Autoignition Temperature: Not Combustible

LEL: UEL:

Flammability Classification:

Extinguishing Media: Unreacted cyanide salts like potassium ferricyanide are not combustible; however, contact with acids will liberate highly toxic, flammable hydrogen cyanide (HCN) gas. Use water spray to fight fires in areas containing this material. Cool fire-exposed metal containers with large amounts of water. Do not use carbon dioxide (CO<sub>1</sub>) extinguishers; this can liberate HCN by the action of the dissolved CO<sub>2</sub>. Unusual Fire or Explosion Hazards: Not considered to be an explosion hazard.

Hazardous Combustion Products:

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

### Section 6 - Accidental Release Measures

Spill/Leak Procedures: Notify safety personnel. Provide adequate ventilation. Scrupulously avoid the addition of any acid to the spill or leak area. Scoop up spilled potassium ferricyanide into suitable containers for disposal. Carefully sweep or vacuum up small spills or residues without creating dust. Preplan and train personnel for emergency response.

Large Spills

Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways,

Cleanup: Cleanup personnel need protection against contact and inhalation.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

### Section 7 - Handling and Storage

Handling Precautions: Protect this material from the light. Protect containers from physical damage. Prevent this material's contact with skin and eyes. Do not taste it or breathe its dust or solution mist. Regularly inspect and maintain the cyanide first aid kits that must be available in all work and storage areas.

Storage Remitters ents: Store potassium ferricyanide in a cool, dry. Well-vertilated, airtieht area away from ammonia, chrominio slovidi oxidizing materials, and acids:

### Section 8 - Exposure Controls / Personal Protection

Engineering Controls: All handling and storage facilities must be designed to prevent accidental contact with acids,

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Scc. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative Controls: Preplan and train personnel for emergency response.

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

NFPA 3 0 Potassium Ferricyanide

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area. Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

Physical State: solid

Appearance and Odor: Bright red, crystalline powder/

Odorless.

Odor Threshold: Vapor Pressure:

Vapor Density (Air=1):

Formula Weight:

Density:

Specific Gravity (H2O=1, at 4 °C): 1.85

pH:

Water Solubility: Slowly soluble in 2.5 parts cold water

Other Solubilities:

Boiling Point:

Freezing/Melting Point:

Viscosity:

Refractive Index:

Surface Tension:

% Volatile:

Evaporation Rate:

Section 10 - Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: Ammonia, chromium trioxide + heat, cupric nitrate, sodium nitrite + heat, acids and acid fumes.

Conditions to Avoid: Light, heat, incompatibles.

Hazardous Decomposition Products: When heated to decomposition or comes in contact with acid or acid fumes it emits toxic fumes of cyanides. Emits toxic fumes of cyanides and oxides of nitrogen when heated to decomposition.

Section 11- Toxicological Information

Toxicity Data:\*

Rat, Oral, LD<sub>La</sub>: 1600 mg/kg

\* See NIOSH, RTECS (L18225000), for additional toxicity data.

Section 12 - Ecological Information --

Ecotoxicity:

Environmental Fate:

Environmental Degradation:

Soil Absorption/Mobility:

Section 13 - Disposal Considerations

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

Disposal Regulatory Requirements:

Container Cleaning and Disposal:

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101): Not regulated

Shipping Name:

Shipping Symbols:

Hazard Class:

ID No.:

Packing Croup:

Label:

Special Provisions (172.102):

Packaging Authorizations

a) Exceptions:

b) Non-bulk Packaging:

c) Bulk Packaging:

in the Quantity Limitations

a) Passenger, Aircraft, or Railcar:

b) Cargo Aircraft Only:

Vessel Stowage Requirements

a) Vessel Stowage:

h) Other:

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Page 3 of 4

Potassium Ferricyanide

### Section 15 - Regulatory Information

### US FEDERAL

TSCA

CAS# 13746-66-2 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

None of the chemicals in this material have an RQ.

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone deplators. This material does not contain any Class 2 Ozone deplators.

depletors. This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 13746-66-2 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XN

Risk Phrases:

R 1/22 (laimful in contact with skin and if swallowed.

Safety Phrases:

S 2 Keep out of reach of children. S 22 Do not inhale dust, S 24/25 Avoid contact with skin and eyes,

WGK (Water Danger/Protection)

CAS# 13746-66-2; 2

Canada

CAS# 13746-66-2 is listed on Canada's DSL/NDSL List.

WHMIS: Not available,

CAS# 13746-66-2 is not listed on Canada's Ingredient Disclosure List.

### Section 16 - Other Information

Disclaimer: All information, recommendations and suggestions appearing herein are based upon sources believed to be reliable: However, it is the users responsibility to determine the safety, toxicity and suitability for its own use of this product. WEGO CHEMICAL & MINERAL CORP. DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE USE BY OTHERS OF THIS PRODUCT.

4/6

10-1360 - 1370

REPORT NUMBER: 703

MSDS NO: 67671

· UNIVAR USA INC.

MATERIAL SAFETY DATA SHEET

MAINFRAME UPLOAD DATE: 05/16/06

VERSION: 001

PAGE: 001

PRODUCT: SODIUM THIOSULFATE ANHYDROUS AND SODIUM THIOSULFATE PENTAHYDRATE

ORDER NO: 248376 PROD NO: 743056

PHOTOGRAPHERS FORMULARY CALL IN ADVANCE TO MEET HOLD ON REDDAUAY DOCK 7180 KESTREL DRIVE MISSOULA ,MT 59808

UNIVAR USA INC.

17425 NE UNION HILL RD , REDMOND -

(425)889-3400

. UA 98052

---- EMERGENCY ASSISTANCE --

FOR EMERGENCY ASSISTANCE INVOLVING CHEMICALS CALL ~ CHEMITREC (800)424-9300

.PRODUCT NAME:

SODIUM THIOSULFATE ANHYDROUS AND SODIUM

THIOSULFATE PENTAHYDRATE

MSDS NUMBER:

67671

DATE ISSUED:

09/01/2004

SUPERSEDES:

NEW

ISSUED 8Y:

001487

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAMES:

SODIUM THIOSULFATE ANHYDROUS AND SODIUM THIOSULFATE PENTAHYDRATE

OTHER/GENERIC NAMES: Sodium Thiosulfate Anhydrous, Sodium Hyposulfite; "hypo"; Sodium Thiosulfate Crystal; Prismatic Rice

PRODUCT USE: Photo processing, water treatment, waste treatment, paper manufacture, other industrial processes.

REPORT NUMBER: 703 MSDS NO: 67671 UNIVAR USA INC.

MATERIAL SAFETY DATA SHEET

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PRODUCT: SODIUM THIOSULFATE ANHYDROUS AND SODIUM THIOSULFATE PENTAHYDRATE

OROER NO: 248376 PROD NO: 743056

Bistribution: UNIVAR 17425 NE Union Hill Road Redmond WA 98052

FOR EMERGENCY IN USA, CALL CHEMTREC:

800-424-9300

(24 Hours/Day, 7 Days/Week)

### COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME Sodium thiosulfate Sodium thiosulfate pentahydrate CAS NUMBER

WEIGHT X

7772-98-7

x98 (anhydrous)

10102-17-7

>99 (pentahydrate)

Trace impurities and additional material names not listed above may appear in Section 15 of this MSOS. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

OSHA Hazard Communication Standard: This product is considered hazardous under the OSHA Hazard Communication Standard.

### 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Odorless, clear to white crystals or granules which may irritate the skin and respiratory tract. May cause irritation and/or burns to the eyes. Reacts with acids to form toxic and irritating sulfur dioxide gas and/or hydrogen sulfide gas. Not flammable.

POTENITAL HEALTH HAZARUS

SKIN: Oust, solutions or mist may cause skin irritation from repeated or prolonged contact.

EYES: Dust, solutions or mist may irritate or burn the eyes and cause temporary conjunctivitis.

INHALATION: Inhalation of product dust or mist may irritate the respiratory tract. Contact with acids releases sulfur dioxide and/or hydrogen sulfide gas which may be harmful or deadly if inhaled.

: INGESTION: Ingestion may cause irritation of the gastrointestinal tract and purging, if a large quantity is ingested. Relatively low in acute toxicity.

DELAYED EFFECTS: None known.

Ingredients found on one of the three OSHA designated carcinogen lists are

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UNIVAR USA INC.

MATERIAL SAFETY DATA SHEET

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PRODUCT: SODIUM THIOSULFATE ANHYDROUS AND SODIUM THIOSULFATE PENTAHYDRATE

ORDER NO: 248376 PROD NO: 743056

listed below.

INGREDIENT NAME

NTP STATUS IN

IARC STATUS

OSHA LIST No

ingredients listed in this section.

### 4. FIRST AID MEASURES

SKIN: Wash skin with plenty of soap and water. Remove contaminated clothing and wash before reuse. Get medical attention if irritation persists.

EYES: Flush eyes immediately with water for at least 15 minutes. Get medical attention if irritation persists.

INHALATION: Promptly remove to fresh air. If breathing is difficult, give oxygen, provided a qualified operator is available. If symptoms persist, get medical attention.

INGESTION: If conscious, immediately give 2 to 4 glasses of water and induce vomiting by touching finger to back of throat. If irritation persists, get medical attention.

ADVICE TO PHYSICIAN: Treat symptomatically,

### 5. FIRE FIGHTING MEASURES

### FLAMMABLE PROPERTIES

FLASH POINT:

FLASH POINT METHOD:

AUTOIGNITION TEXTURE (UKC:

UPPER FLAME LIMIT (volume % in air):

LOWER FLAME LIMIT (volume % in air):

Not applicable
FLAME PROPAGATION RATE (solids):

Not applicable

FLAME PROPAGATION RATE (solids); OSHA FLAMMABILITY CLASS;

Not applicable

EXTINGUISHING MEDIA:

Material is not flammable. Use extinguishing media appropriate for material in surrounding fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

### SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:

Wear NIOSH-approved self-contained breathing apparatus to protect against any release of toxic and/or irritating fumes. Skin and eye protection should also be provided. Use water-spray to keep fire-exposed containers cool, and to knock down fumes.

### ACCIDENTAL RELEASE MEASURES

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UNIVAR USA INC.

MATERIAL SAFETY DATA SHEET

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PRODUCT: SOOIUM THIOSULFATE AWAYDROUS AND SOOIUM THIOSULFATE PENTAHYDRATE

ORDER NO: 248376 PROD NO: 743056

IN CASE OF SPILL OR OTHER RELEASE: (See section 8 for recommended personal protective equipment.) Promptly shovel or sweep up material with minimum dusting and shovel into an empty container with a cover. Cautiously spray residue with plenty of water.

Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

### 7. HANDLING AND STORAGE

NORMAL HANDLING: (See section 8 for recommended personal protective equipment.)

Avoid contact with skin, eyes and clothing. Do not breathe dust or mist. Use with adequate ventilation. Wash thoroughly after handling.

If dissolving and mixing solutions: with anhydrous material, the reaction is exothermic and the solution will retain heat; with the hydrate (crystal) material, the reaction is endothermic and the solution will cool.

### STORAGE RECOMMENDATIONS:

Store in a cool, dry, well-ventilated area away from acids and oxidizing agents. Keep container closed when not in use and protect from physical damage.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### ENGINEERING CONTROLS:

Provide local exhaust if dusty or misty conditions exist or if there is a release of sulfu dinxide and/or hydrogen sulfide gas. Keep incompatible materials out of hooss, ducts, etc.

### PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION: For handling dry material, wear cotton gloves and full work clothing, including long-sleeved shirt and trousers. When handling solutions, wear impervious gloves and an apron. If contact with the solution is repeated and/or prolonged, wear full impervious clothing.

EYE PROTECTION: Wear a hard hat (or other head covering) and chemical safety glasses/goggles. Do not wear contact lenses.

RESPIRATORY PROTECTION: Where required, use a NIOSH-approved respirator for dust, mist, sulfur dioxide and/or hydrogen sulfide gas, as conditions indicate. If sulfur dioxide and/or hydrogen sulfide gas should be released, use a NIOSH-approved self-contained breathing apparatus or supplied-air respirator.

UNIVAR USA INC.

MATERIAL SAFETY DATA SHEET

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PRODUCT: SODIUM THIOSULFATE ANHYDROUS AND SODIUM THIOSULFATE PENTAHYDRATE

ORDER NO: 248376 PROD NO : 743056

ADDITIONAL RECOMMENDATIONS: Eyewash and safety shower are recommended.

EXPOSURE GUIDELINES

INGREDIENT NAME

ACGIH TLV

OSHA PEL

OTHER LIMIT

No ingredients listed in this section.

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:

Sulfur dioxide: OSHA TVA = 5 ppm;

ACGIH TLV = 2 ppm;

ACGIH STEL = 5 ppm.

Hydrogen sulfide:

OSHA Ceiling = 20 ppm; ACGIH TLV = 10 ppm;

ACGIH STEL = 15 ppm.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:

Clear to White granules or crystals.

PHYSICAL STATE:

Solid.

MOLECULAR WEIGHT:

158,11 (anhydrous) 248.18 (pentahydrate)

CHEMICAL FORMULA:

Na29203 (anhydrous)

HYDRATED FORMULA:

Na2S203 5H20 (pentahydrate)

Odorless.

SPECIFIC GRAVITY (water = 1.0): 1.667 (anhydrous)

1.685 (pentahydrate)

SOLUBILITY IN WATER (weight =

33 @ 0 deg. C (anhydrous

1.0)

52 @ O deg, C (pentahydrate -8.6 (7.5% solution; anhydrous)

PH:

Not applicable.

BOILING POINT:

48 deg C (pentahydrate)

MELTING POINT: VAPOR PRESSURE:

Not applicable.

VAPOR DENSITY (air = 1.0):

Not applicable.

EVAPORATION RATE:

Not applicable. COMPARED TO:

Not applicable,

% VOLATILES:

Not applicable.

FLASH POINT:

Not flammable.

(Flash point method and additional flammability data are found in Section 5.)

10. STABILITY AND REACTIVITY

NORMALLY STABLE? (CONDITIONS TO AVOID):

Normally stable.

INCOMPATIBILITIES:

MSDS NO: 67671

UMIVAR USA INC.

MATERIAL SAFETY DATA SHEET

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PRODUCT: SODIUM THIOSULFATE ANHYDROUS AND SODIUM THIOSULFATE PENTAHYDRATE

ORDER NO: 248376 PROD NO: 743056

Strong exidizers: causes vigorous exothermic reactions. Acids: releases sulfur dioxide and/or hydrogen sulfide gas.

HAZARDOUS DECOMPOSITION PRODUCTS:

Sulfur dioxide gas, hydrogen sulfide gas and sodium sulfide residue.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

IMMEDIATE (ACUTE) EFFECTS: Bata not available.

DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS: Data not available.

OTHER DATA:

None.

12, ECOLOGICAL INFORMATION

Data not available.

13, DISPOSAL CONSIDERATIONS

Is the unused product a RCRA hazardous waste if If yes, the RCRA ID number discarded? No

is: Not applicable.

WITHER WISPOSAL CONSTDERATIONS:

Dispose of in accordance with applicable Federal, State and Local 🥖

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

### 14. TRANSPORT INFORMATION

US DOT HAZARD CLASS: Not regulated. Not applicable. US DOT ID NUMBER: PROPER SHIPPING NAME: Not applicable.

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

UNIVAR USA INC.

MSDS NO: 67671

MATERIAL SAFETY DATA SHEET

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PRODUCT: SODIUM THIOSULFATE ANHYDROUS AND SODIUM THIOSULFATE PENTAHYDRATE

ORDER NO: 248376 -PROD NO: 743056

15, REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)

TSCA INVENTORY STATUS: All components are listed on TSCA Inventory of

Chemical Substances.

OTHER TSCA ISSUES: None.

SARA TITLE III/CERCLA

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

INGREDIENT NAME

SARA/CERCLA RQ (1b) - SARA EHS TPQ (1b)

No ingredients listed in this section.

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center £(800) 424-88021 and to your Local Emergency Planning Committee.

SECTION 311 HAZARO CLASS:

Immediate.

SARA 313 TOXIC CHEMICALS:

The following ingredients are SARA 313 "Toxic Chemicals" and may be subject to annual reporting requirements. CAS numbers and weight percents are found in Section 2.

INGREDIENT NAME

Mo ingredients listed in this section.

STATE RIGHT-TO-KNOW

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

INGREDIENT WAME

WEIGHT X

No ingredients listed in this section.

ADDITIONAL REGULATORY INFORMATION: -gagarin None

WHMIS CLASSIFICATION (CANADA):

544 65 TO 028

. FOREIGN CHEMICAL CONTROL INVENTORY STATUS: Listed on Canadian OSL and EU EINECS.

OTHER INFORMATION: This product is not for food or drug use.

REPORT NUMBER: 703 MSGS NO: 67471 UNIVAR USA INC.

MATERIAL SAFETY DATA SHEET

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CONSEQUENTIAL DAMGAGES. \*\*

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PRODUCT: SODIUM THIOSULFATE ANHYDROUS AND SODIUM THIOSULFATE PENTAHYDRATE

· · · · · · · · · · · · · · · · · · ·	
ORDER NO: 248376	
PROD NO : 743056	
***************************************	
FOR ADDITIONAL INFORMATION	
CONTACT: MSDS COORDINATOR UNIVAR USA INC.  DURING BUSINESS HOURS, PACIFIC TIME (425)889-3400	
01/26/07 13:36 PRODUCT: 743056 CUST NO: 113365 ORDER NO: 248376	
NOTICE	
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