

The above sequence can be repeated if the negative is not sufficiently reduced.

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



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### 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.

## SAFETY DATA SHEET

Version 4.12  
Revision Date 05/23/2016  
Print Date 05/29/2016**1. PRODUCT AND COMPANY IDENTIFICATION****1.1 Product identifiers**

Product name : Potassium hexacyanoferrate(III)

Product Number : 455946  
Brand : Aldrich

CAS-No. : 13746-66-2

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Synthesis of substances

**1.3 Details of the supplier of the safety data sheet**Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USATelephone : +1 800-325-5832  
Fax : +1 800-325-5052**1.4 Emergency telephone number**

Emergency Phone # : (314) 776-6555

**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Not a hazardous substance or mixture.

**2.2 GHS Label elements, including precautionary statements****2.3 Hazards not otherwise classified (HNOC) or not covered by GHS**

Contact with acids liberates very toxic gas.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**Synonyms : Red prussiate  
Potassium ferricyanideFormula :  $C_6FeK_3N_6$   
Molecular weight : 329.24 g/mol  
CAS-No. : 13746-66-2  
EC-No. : 237-323-3**Hazardous components**

Component	Classification	Concentration
<b>Tripotassium hexacyanoferrate</b>		<= 100 %

---

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

---

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

No data available

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

No data available

---

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Avoid breathing dust.

For personal protection see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

---

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Tripotassium hexacyanoferrate	13746-66-2	C	5.000000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory Tract irritation Headache Nausea Thyroid effects Danger of cutaneous absorption varies		
		C	5.000000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Headache Nausea Thyroid effects Danger of cutaneous absorption varies		
		TWA	1.000000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Skin irritation varies		
		C	4.700000 ppm 5.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		10 minute ceiling value		
		TWA	1.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	5 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		CAS number varies with compound Skin designation		
		C	5 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Headache Nausea Thyroid effects Danger of cutaneous absorption varies		
		TWA	1 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Skin irritation varies		
		C	4.7 ppm 5 mg/m3	USA. NIOSH Recommended Exposure Limits
		10 minute ceiling value		

		TWA	1 mg/m3	USA. NIOSH Recommended Exposure Limits
		PEL	1 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

## 8.2 Exposure controls

### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

#### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

#### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

Do not let product enter drains.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- |                                 |                                     |
|---------------------------------|-------------------------------------|
| a) Appearance                   | Form: crystalline                   |
| b) Odour                        | No data available                   |
| c) Odour Threshold              | No data available                   |
| d) pH                           | 6.0 - 9 at 329 g/l at 25 °C (77 °F) |
| e) Melting point/freezing point | No data available                   |

f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	1.890 g/cm <sup>3</sup>
n) Water solubility	329 g/l at 20 °C (68 °F) - completely soluble
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

## 9.2 Other safety information

No data available

---

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Contact with acids liberates very toxic gas.

### 10.2 Chemical stability

May discolor on exposure to light.  
Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong acids, Strong oxidizing agents, Ammonia, hydrochloric acid, Cyanides

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Potassium oxides, Iron oxides

Other decomposition products - No data available

In the event of fire: see section 5

---

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Mouse - 2,970 mg/kg

Inhalation: No data available

Dermal: No data available

No data available

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

No data available

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: LJ8225000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

---

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 869 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 549 mg/l - 48 h

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

No data available

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## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

---

## 14. TRANSPORT INFORMATION

**DOT (US)**

UN number: 3077      Class: 9      Packing group: III  
Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Tripotassium hexacyanoferrate)  
Reportable Quantity (RQ): 10 lbs

Poison Inhalation Hazard: No

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

---

## 15. REGULATORY INFORMATION

**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

No SARA Hazards

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
Tripotassium hexacyanoferrate	13746-66-2	1989-08-11

**New Jersey Right To Know Components**

	CAS-No.	Revision Date
Tripotassium hexacyanoferrate	13746-66-2	1989-08-11

**California Prop. 65 Components**

	CAS-No.	Revision Date
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.	13746-66-2	2013-07-26

Tripotassium hexacyanoferrate

---

## 16. OTHER INFORMATION

**HMIS Rating**

Health hazard:	1
Chronic Health Hazard:	
Flammability:	0
Physical Hazard	0



**NFPA Rating**

Health hazard: 0  
Fire Hazard: 0  
Reactivity Hazard: 0

**Further information**

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**Preparation Information**

Sigma-Aldrich Corporation  
Product Safety – Americas Region  
1-800-521-8956

Version: 4.12

Revision Date: 05/23/2016

Print Date: 05/29/2016



# MATERIAL SAFETY DATA SHEET

## SODIUM THIOSULFATE

MSDS NUMBER: EUSA-180  
CURRENT ISSUE DATE: October, 2010  
Page 1 of 6

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAMES:** Secohypo™ 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.

**SUPPLIER:** Esseco USA LLC  
Gatehall IV  
4 Gatehall Drive  
Parsippany, NJ 07054

**FOR MORE INFORMATION CALL:** 973-267-3330  
(Monday-Friday, 9:00am-4:30pm)

**FOR EMERGENCY IN USA, CALL CHEMTREC:** 800-424-9300  
(24 Hours/Day, 7 Days/Week)

### 2. 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.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Sodium thiosulfate	7772-98-7	>98
Or Sodium thiosulfate pentahydrate	10102-17-7	>99

Trace impurities and additional material names not listed above may appear in Section 15 of this MSDS. 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.*

### 4. FIRST AID MEASURES

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

**EYES:** Flush eyes immediately with water for at least 15 minutes. Remove contact lenses if present after the first 5 minutes if you can do so easily and continue flushing. Get immediate medical attention.

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



# MATERIAL SAFETY DATA SHEET

## SODIUM THIOSULFATE

MSDS NUMBER: EUSA-180  
CURRENT ISSUE DATE: October, 2010  
Page 2 of 6

**INGESTION:** If conscious, immediately rinse with water and give 1 glass of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

**ADVICE TO PHYSICIAN:** Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

**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 vapors and gases.

### 6. ACCIDENTAL RELEASE MEASURES

**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. Clean spill area 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 sulfur dioxide and/or hydrogen sulfide gas. Keep incompatible materials out of hoods, ducts, etc.



# MATERIAL SAFETY DATA SHEET

## SODIUM THIOSULFATE

MSDS NUMBER: EUSA-180  
CURRENT ISSUE DATE: October, 2010  
Page 3 of 6

### PERSONAL PROTECTIVE EQUIPMENT

**SKIN PROTECTION:** For handling dry material, wear rubber 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 chemical safety glasses/goggles.

**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. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice.

**ADDITIONAL RECOMMENDATIONS:** Eyewash and safety shower are recommended.

### EXPOSURE GUIDELINES

<u>INGREDIENT NAME</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER LIMIT</u>
No ingredients listed in this section.	----	----	----

### **OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:**

Sulfur dioxide: OSHA TWA = 5 ppm;  
ACGIH STEL = 0.25 ppm.

Hydrogen sulfide: OSHA 10 minute peak during 8hr shift = 50 ppm  
OSHA Ceiling = 20 ppm  
ACGIH TWA = 1 ppm  
ACGIH STEL = 5 ppm

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE:</b>	Clear to White granules or crystals.	
<b>PHYSICAL STATE:</b>	Solid.	
<b>MOLECULAR WEIGHT:</b>	158.11 (anhydrous) 248.18 (pentahydrate)	
<b>CHEMICAL FORMULA:</b>	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (anhydrous)	
<b>HYDRATED FORMULA:</b>	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> · 5H <sub>2</sub> O (pentahydrate)	
<b>ODOR:</b>	Odorless.	
<b>SPECIFIC GRAVITY (water = 1.0):</b>	1.667 (anhydrous) 1.685 (pentahydrate)	
<b>SOLUBILITY IN WATER (weight %):</b>	33 @ 0 °C (anhydrous) 52 @ 0 °C (pentahydrate)	
<b>pH:</b>	-8.6 (7.5% solution; anhydrous)	
<b>BOILING POINT:</b>	Not applicable.	
<b>MELTING POINT:</b>	48 °C (pentahydrate)	
<b>VAPOR PRESSURE:</b>	Not applicable.	
<b>VAPOR DENSITY (air = 1.0):</b>	Not applicable.	
<b>EVAPORATION RATE:</b>	Not applicable.	
<b>% VOLATILES:</b>	Not applicable.	
<b>FLASH POINT:</b>	Not flammable.	
<b>FLASH POINT METHOD:</b>	Not applicable	
	<b>COMPARED TO:</b>	Not applicable.



# MATERIAL SAFETY DATA SHEET

## SODIUM THIOSULFATE

MSDS NUMBER: EUSA-180  
CURRENT ISSUE DATE: October, 2010  
Page 4 of 6

AUTOIGNITION TEMPERATURE: Not applicable  
UPPER FLAME LIMIT (volume % in air): Not applicable  
LOWER FLAME LIMIT (volume % in air): Not applicable  
FLAME PROPAGATION RATE (solids): Not applicable  
OSHA FLAMMABILITY CLASS: Not applicable

### 10. STABILITY AND REACTIVITY

**NORMALLY STABLE? (CONDITIONS TO AVOID):**  
Normally stable.

**INCOMPATIBILITIES:**  
Strong oxidizers: 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

#### POTENTIAL HEALTH HAZARDS

**SKIN:** Dust, 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 listed below.

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
No ingredients listed in this section.	----	----	----

#### TOXICITY DATA:

**Immediate (Acute) Effects:**  
Data not available.

**Delayed (Subchronic and chronic) Effects:**  
Data not available.



# MATERIAL SAFETY DATA SHEET

## SODIUM THIOSULFATE

MSDS NUMBER: EUSA-180  
CURRENT ISSUE DATE: October, 2010  
Page 5 of 6

**Other Data:**  
None.

### 12. ECOLOGICAL INFORMATION

The following data is available for Sodium Thiosulfate anhydrous:

Daphnia Magna LC50 48 hrs	520 mg/L
Western Mosquitofish LC50 96 hrs	24,000 mg/L

Not classified as hazardous to aquatic organisms.

### 13. DISPOSAL CONSIDERATIONS

#### RCRA

Is the unused product a RCRA hazardous waste if discarded? No                      If yes, the RCRA ID number is: Not applicable.

#### OTHER DISPOSAL CONSIDERATIONS:

Dispose of in accordance with applicable Federal, State and Local regulations.

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.  
US DOT ID NUMBER:                Not applicable.  
PROPER SHIPPING NAME:         Not applicable.

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

### 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.

<u>INGREDIENT NAME</u>	<u>SARA/CERCLA RQ (lb)</u>	<u>SARA EHS TPQ (lb)</u>
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) 424-8802] and to your Local Emergency Planning Committee. Many states have more stringent regulations. Report all spills in accordance with local, state, and federal regulations.



# MATERIAL SAFETY DATA SHEET

## SODIUM THIOSULFATE

MSDS NUMBER: EUSA-180  
CURRENT ISSUE DATE: October, 2010  
Page 6 of 6

**SECTION 311 HAZARD CLASS:** Acute Health

**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**

No ingredients listed in this section.

**COMMENT**

----

**STATE RIGHT-TO-KNOW**

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

**INGREDIENT NAME**

No ingredients listed in this section.

**WEIGHT %**

----

**COMMENT**

----

**ADDITIONAL REGULATORY INFORMATION:**

None

**WHMIS CLASSIFICATION (CANADA):**

D2B

**FOREIGN CHEMICAL CONTROL INVENTORY STATUS:**

Listed on Canadian DSL, Australian AICS, Phillipines PICCS, Chinese IECSC, Japanese MITI, Korean KECL, and EU EINECS.

### 16. OTHER INFORMATION

**CURRENT ISSUE DATE:** October, 2010  
**PREVIOUS ISSUE DATE:** September, 2007

**CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:**

Updated section 8 - revised exposure limits.

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

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