



**VWR ANALYTICAL**

# SAFETY DATA SHEET

Issuing Date 05-Aug-2015

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Revision Number 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product Identifier

Product Name/Catalog ID 89800-020, 89800-022

### Other means of identification

Product Description 1000 µg/mL Arsenic+3

### Recommended use of the chemical and restrictions on use

Recommended Use Laboratory chemicals.

Uses advised against No information available

### Details of the supplier of the safety data sheet

#### **Company**

VWR International, LLC  
Radnor Corporate Center  
Building One, Suite 200  
P.O. Box 6660  
100 Matsonford Road  
Radnor, PA 19087-8660  
Tel: 610-386-1700

### Emergency Telephone Number

Chemtrec 1-800-424-9300 (US)  
Canutec - 1-613-996-6666 (Canada)

## 2. HAZARDS IDENTIFICATION

### GHS

#### Classification

Carcinogenicity

Category 1A

#### Label Elements

#### **Danger**

#### **Hazard Statements**

May cause cancer

**Appearance** Clear / Colorless**Physical State** Liquid**Odor** Slight chlorine**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

**Skin**

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Wash contaminated clothing before reuse

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)****Other Information****3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Weight %
Arsenic trioxide	1327-53-3	0.1

**4. FIRST AID MEASURES****First Aid Measures****General Advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

**Eye Contact**

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. If symptoms persist, call a physician.

**Skin Contact**

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

**Inhalation**

Immediate medical attention is required. Move to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, give oxygen. If breathing is irregular or stopped, administer artificial respiration.

**Ingestion** Immediate medical attention is required. Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person.

**Protection of First-aiders** Use personal protective equipment. Avoid contact with skin, eyes and clothing.

**Most important symptoms and effects, both acute and delayed**

**Most Important Symptoms/Effects** Difficulty breathing.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

**Special Exposure Hazards Arising from the Substance/Mixture**

Thermal decomposition can lead to release of irritating and toxic gases and vapors

**Explosion Data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

**Environmental Precautions**

**Environmental Precautions** Prevent further leakage or spillage if safe to do so. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**Methods and material for containment and cleaning up**

**Methods for Cleaning up** Dam up. Neutralise with lime; soda. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

**Handling** Wear personal protective equipment. In case of insufficient ventilation, wear suitable respiratory equipment. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. Handle product only in closed system or provide appropriate exhaust ventilation at machinery.

**Conditions for safe storage, including any incompatibilities**

**Technical measures/Precautions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible Products** None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Arsenic trioxide 1327-53-3	TWA: 0.01 mg/m <sup>3</sup>	TWA: 10 µg/m <sup>3</sup>	IDLH: 5 mg/m <sup>3</sup> Ceiling: 0.002 mg/m <sup>3</sup>

#### Appropriate engineering controls

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

#### Individual protection measures, such as personal protective equipment

**Eye Protection** Tightly fitting safety goggles  
**Skin and Body Protection** Impervious clothing Boots Chemical resistant apron  
**Hand Protection** Impervious gloves  
**Respiratory Protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.  
**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing.

## Section 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid
<b>Appearance</b>	Clear / Colorless
<b>Odor</b>	Slight chlorine
<b>Property</b>	<b>Values</b>
<b>pH VALUE</b>	No data available
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	100 °C
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Relative Density</b>	No data available
<b>Specific Gravity</b>	No data available
<b>Water Solubility</b>	Miscible
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available
<b>Other information</b>	
<b>VOC Content</b>	No information available.

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available.

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to Avoid**

None known.

**Incompatible Materials**

Reducing agents

**Hazardous Decomposition Products**

Hydrogen chloride.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information**

Harmful by inhalation Toxic if swallowed Contains a known or suspected carcinogen. May cause cancer

**Inhalation**

Harmful by inhalation.

**Eye Contact**

There is no data available for this product.

**Skin Contact**

There is no data available for this product.

**Ingestion**

Toxic if swallowed.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Arsenic trioxide 1327-53-3 ( 0.1 )	= 14.6 mg/kg ( Rat )	-	-

**Information on toxicological effects****Symptoms**

No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Sensitization**

No information available.

**Mutagenic Effects**

No information available.

**Carcinogenic effects**

Contains a known or suspected carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Arsenic trioxide 1327-53-3	A1	Group 1	Known	X

**Reproductive Toxicity**

No information available.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Target Organ Effects**

Respiratory system.

**Aspiration Hazard**

No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 14600 mg/kg

ATEmix (inhalation-dust/mist) 83.5 mg/L

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Ecotoxicity effects

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Arsenic trioxide 1327-53-3		135: 96 h Pimephales promelas mg/L LC50 18.8 - 21.4: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 1000: 96 h Oncorhynchus mykiss mg/L LC50 static		EC50 24 h 3.9 - 4.5 mg/L (Daphnia magna) LC50 96 h = 0.96 mg/L (Daphnia magna)

#### Persistence and Degradability

No information available.

#### Bioaccumulation/Accumulation

No information available.

Chemical Name	Log Pow
Arsenic trioxide 1327-53-3	18.1

#### Other Adverse Effects

## 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

#### Waste from Residues/Unused Products

Dispose of in accordance with federal, state and local regulations

#### Contaminated Packaging

Do not re-use empty containers.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Arsenic trioxide 1327-53-3	P012			

Chemical Name	California Hazardous Waste Status
Arsenic trioxide 1327-53-3	Toxic

## 14. Transport information

#### IMDG/IMO

14.1. UN-No	UN3264
14.2. Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s
14.3. Hazard Class	8
14.4. Packing Group	III
Description	Not applicable.
14.5. Marine Pollutant	None.
14.6. Special Provisions	None
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available.

#### RID

14.1. UN-No	UN3264
14.2. Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s

<b>14.3. Hazard Class</b>	8
<b>14.4. Packing Group</b>	III
<b>Description</b>	Not applicable.
<b>14.5. Environmental hazard</b>	None
<b>14.6. Special Provisions</b>	None

**ADR**

<b>14.1. UN-No</b>	UN3264
<b>14.2. Proper Shipping Name</b>	Corrosive liquid, acidic, inorganic, n.o.s
<b>14.3. Hazard Class</b>	8
<b>14.4. Packing Group</b>	III
<b>Description</b>	Not applicable.
<b>14.5. Environmental hazard</b>	None
<b>14.6. Special Provisions</b>	None

**ICAO**

<b>14.1. UN-No</b>	UN3264
<b>14.2. Proper Shipping Name</b>	Corrosive liquid, acidic, inorganic, n.o.s
<b>14.3. Hazard Class</b>	8
<b>14.4. Packing Group</b>	III
<b>Description</b>	Not applicable.
<b>14.5. Environmental hazard</b>	None
<b>14.6. Special Provisions</b>	None

**IATA-DGR**

<b>14.1. UN-No</b>	UN3264
<b>14.2. Proper Shipping Name</b>	Corrosive liquid, acidic, inorganic, n.o.s
<b>14.3. Hazard Class</b>	8
<b>14.4. Packing Group</b>	III
<b>Description</b>	Not applicable
<b>14.5. Environmental hazard</b>	None
<b>14.6. Special Provisions</b>	None

<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

*DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List*

*EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances*

*ENCS - Japan Existing and New Chemical Substances*

*IECSC - China Inventory of Existing Chemical Substances*

*KECL - Korean Existing and Evaluated Chemical Substances*

*PICCS - Philippines Inventory of Chemicals and Chemical Substances*

*AICS - Australian Inventory of Chemical Substances*

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	No
<b>Chronic Health Hazard</b>	No

<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Arsenic trioxide 1327-53-3	1 lb	X		X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Arsenic trioxide 1327-53-3	1 lb	1 lb	RQ 1 lb final RQ RQ 0.454 kg final RQ

**U.S. State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Arsenic trioxide - 1327-53-3	Carcinogen Developmental

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Arsenic trioxide 1327-53-3	X	X	X

**U.S. EPA Label Information**

<b>16. OTHER INFORMATION</b>
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Revision Date 03-Aug-2015

**Revision Note**

No information available

**Disclaimer**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and its Affiliates shall not be held liable for any damage resulting from handling.

**End of MSDS**