



VWR ANALYTICAL

SAFETY DATA SHEET

Issuing Date 11-Sep-2015

Revision Date 11-Sep-2015

Revision Number 1

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

Product Identifier

Product Name/Catalog ID 89800-280, 89800-282

Other means of identification

Product Description 10 000 µg/mL Beryllium

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

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

2. HAZARDS IDENTIFICATION

GHS

Classification

Acute Toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1 Sub-category A
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

Label Elements

Danger

Hazard Statements

HARMFUL IF SWALLOWED

Fatal if inhaled

Causes severe skin burns and eye damage

May cause an allergic skin reaction

Causes damage to organs through prolonged or repeated exposure

**Appearance** Clear / Colorless**Physical State** Liquid**Odor** Vinegar-like**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not breathe dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

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

Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response**Eyes**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician**Skin**

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

If skin irritation or rash occurs: Get medical advice/attention

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a POISON CENTER or doctor/physician

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Do not induce vomiting

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

• Harmful to aquatic life with long lasting effects

Other Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Beryllium di(acetate)	543-81-7	11
Nitric acid	7697-37-2	6

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

General Advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. May cause allergic skin reaction. Immediately call a POISON CENTER or doctor/physician.
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. Immediate medical attention is required.
Skin Contact	May cause an allergic skin reaction. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Immediate medical attention is required.
Inhalation	Immediate medical attention is required. Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Call a physician or Poison Control Center immediately. If breathing is difficult, give oxygen.
Ingestion	Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Immediate medical attention is required.
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. May cause allergic skin reaction. Burn.

Indication of any immediate medical attention and special treatment needed

Notes to Physician	May cause sensitization by skin contact Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure
---------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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 May cause sensitization by skin contact The product causes burns of eyes, skin and mucous membranes

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. Do not touch or walk through spilled material.

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
Beryllium di(acetate) 543-81-7	TWA: 0.00005 mg/m ³ Skin	TWA: 2 µg/m ³ (vacated) TWA: 2 µg/m ³ (vacated) STEL: 25 µg/m ³ (vacated) Ceiling: 5 µg/m ³ Ceiling: 5 µg/m ³	IDLH: 4 mg/m ³ Ceiling: 0.0005 mg/m ³
Nitric acid 7697-37-2	4 ppm STEL TWA: 2 ppm	TWA: 2 ppm TWA: 5 mg/m ³ (vacated) TWA: 2 ppm (vacated) TWA: 5 mg/m ³ (vacated) STEL: 4 ppm (vacated) STEL: 10 mg/m ³	IDLH: 25 ppm TWA: 2 ppm TWA: 5 mg/m ³ STEL: 4 ppm STEL: 10 mg/m ³

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 Face-shield

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

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

Nitrogen oxides (NO_x).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	May cause sensitization by skin contact Contains a known or suspected carcinogen. May cause cancer by inhalation Harmful if swallowed Very toxic by inhalation The product causes burns of eyes, skin and mucous membranes.
Inhalation	Contact with moist mucous membranes of the respiratory system can cause caustic condition resulting in burns. Aspiration may cause pulmonary edema and pneumonitis. Very toxic by inhalation. Causes burns. Corrosive to respiratory system. Inhaled corrosive substances can lead to a toxic edema of the lungs.
Eye Contact	Causes burns.
Skin Contact	May cause sensitization by skin contact. Causes burns.
Ingestion	Harmful if swallowed. Can burn mouth, throat, and stomach.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Beryllium di(acetate) 543-81-7 (11)	-	-	-
Nitric acid 7697-37-2 (6)	-	-	= 130 mg/m ³ (Rat) 4 h = 67 ppm (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

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

Sensitization May cause sensitization by skin contact.
Mutagenic Effects No information available.
Carcinogenic effects Contains a known or suspected carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Beryllium di(acetate) 543-81-7	A1	Group 1	Known	X
Nitric acid 7697-37-2		Group 2A		X

Reproductive Toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Target Organ Effects Skin, Eyes, Respiratory system.
Other Adverse Effects Toxic: danger of serious damage to health by prolonged exposure through inhalation.
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)	909 mg/kg
ATEmix (inhalation-gas)	909 mg/L
ATEmix (inhalation-dust/mist)	0.5 mg/L
ATEmix (inhalation-vapor)	1117 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects

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

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
---------------	-------------------	------------------	----------	----------------------------

Nitric acid 7697-37-2		72: 96 h Gambusia affinis mg/L LC50		
--------------------------	--	----------------------------------------	--	--

Persistence and Degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical Name	Log Pow
Nitric acid 7697-37-2	-2.3

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	California Hazardous Waste Status
Beryllium di(acetate) 543-81-7	Toxic
Nitric acid 7697-37-2	Toxic Corrosive Ignitable

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

ADR

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. Environmental hazard	None

14.6. Special Provisions None

ICAO

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. Environmental hazard None
 14.6. Special Provisions None

IATA-DGR

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. Environmental hazard None
 14.6. Special Provisions None

15. REGULATORY INFORMATION

International Inventories

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

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	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
Beryllium di(acetate) 543-81-7		X		

Nitric acid 7697-37-2	1000 lb			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
Nitric acid 7697-37-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

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

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Beryllium di(acetate) - 543-81-7	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Beryllium di(acetate) 543-81-7	X		X
Nitric acid 7697-37-2	X	X	X

U.S. EPA Label Information

16. OTHER INFORMATION

Revision Date

11-Sep-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