



# SAFETY DATA SHEET

Issuing Date 14-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 AACD1

### Other means of identification

Product Description 1000 µg/mL Cadmium

### 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**

Inorganic Ventures  
300 Technology Drive  
Christiansburg, VA 24073  
web: www.inorganicventures.com

E-mail Address info@inorganicventures.com

### Emergency Telephone Number

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

## 2. HAZARDS IDENTIFICATION

### GHS

#### Classification

Skin corrosion/irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 2

#### Label Elements

#### **Danger**

#### **Hazard Statements**

Causes skin irritation  
Causes serious eye damage  
May cause cancer  
Suspected of damaging fertility or the unborn child

**Appearance** Clear / Colorless**Physical State** Liquid**Odor** Odorless**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****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: Wash with plenty of soap and water  
 If skin irritation occurs: Get medical advice/attention  
 Take off contaminated clothing and wash 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)**

• Very toxic to aquatic life with long lasting effects

**Other Information**

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Nitric acid	7697-37-2	3
Cadmium and compounds (as Cd)	7440-43-9	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.

<b>Eye Contact</b>	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.
<b>Skin Contact</b>	Immediate medical attention is required. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
<b>Inhalation</b>	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.
<b>Ingestion</b>	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.
<b>Protection of First-aiders</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing.
<b><u>Most important symptoms and effects, both acute and delayed</u></b>	
<b>Most Important Symptoms/Effects</b>	Difficulty breathing.
<b><u>Indication of any immediate medical attention and special treatment needed</u></b>	
<b>Notes to Physician</b>	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. Prevent product from entering drains. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system. Prevent entry into waterways, sewers, basements or confined areas. Should not be released into the environment. 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.



<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

Nitrogen oxides (NOx).

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<b>Product Information</b>	Harmful by inhalation Contains a known or suspected carcinogen. May cause cancer
<b>Inhalation</b>	Harmful by inhalation.
<b>Eye Contact</b>	There is no data available for this product.
<b>Skin Contact</b>	There is no data available for this product.
<b>Ingestion</b>	Harmful if swallowed.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nitric acid 7697-37-2 ( 3 )	-	-	= 130 mg/m <sup>3</sup> ( Rat ) 4 h = 67 ppm ( Rat ) 4 h
Cadmium and compounds (as Cd) 7440-43-9 ( 0.1 )	= 225 mg/kg ( Rat )	-	= 25 mg/m <sup>3</sup> ( Rat ) 30 min

### 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
Nitric acid 7697-37-2		Group 2A		X
Cadmium and compounds (as Cd) 7440-43-9	A2	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 (inhalation-dust/mist)** 46.9 mg/L

**ATEmix (inhalation-vapor)** 2233 mg/L

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Ecotoxicity effects** Very toxic to aquatic organisms May cause long-term adverse effects in the aquatic environment

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		
Cadmium and compounds (as Cd) 7440-43-9		0.003: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.006: 96 h Oncorhynchus mykiss mg/L LC50 static 0.002: 96 h Cyprinus carpio mg/L LC50 4.26: 96 h Cyprinus carpio mg/L LC50 semi-static 0.24: 96 h Cyprinus carpio mg/L LC50 static 21.1: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.016: 96 h Oryzias latipes mg/L LC50 0.0004 - 0.003: 96 h Pimephales promelas mg/L LC50		EC50 48 h = 0.0244 mg/L (Daphnia magna)

**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 Should not be released into the environment

**Contaminated Packaging** Do not re-use empty containers.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Cadmium and compounds (as Cd) 7440-43-9		Included in waste streams: F006, F039, K061, K069, K100	1.0 mg/L regulatory level	

Chemical Name	California Hazardous Waste Status
Nitric acid 7697-37-2	Toxic Corrosive Ignitable
Cadmium and compounds (as Cd) 7440-43-9	Toxic Ignitable

### Section 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**

<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/NDSL</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/NDSL - 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
Nitric acid 7697-37-2	1000 lb			X
Cadmium and compounds (as Cd) 7440-43-9		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
Nitric acid 7697-37-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ



Cadmium and compounds (as Cd) 7440-43-9	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ
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**U.S. State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Cadmium and compounds (as Cd) - 7440-43-9	Carcinogen Developmental Male Reproductive

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Nitric acid 7697-37-2	X	X	X
Cadmium and compounds (as Cd) 7440-43-9	X	X	X

**U.S. EPA Label Information**

<b>16. OTHER INFORMATION</b>
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Revision Date 14-Aug-2015

**Revision Note**

No information available

**Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**