

Safety Committee Meeting Minutes

DATE: January 22, 2018

OPERATIONAL BUSINESS

Topic:	Attendance		
Members Present:	⋈ (C) Betty Lunceford	⊠ Cecilia Jimenez	
	⋈ (NT) Maria Ales	☐ Kerry Kakigi	☐ Adam Russell
	☐ Chuck Davis	☐ Theryn Kigvamasudvashti	☐ Shiro Vance
	□ Dave Ernevad □ Krystal Nash		
	⋈ Michael Faucette	☐ Erik Oberholtzer	☑ Quorum Attained*
Meetings Type:	☐ Conference Call	☑ In Person: BE 4180A	
Guests:			

^{*} Quorum is attained at 6 members – at least 1 employer-selected AND an equal or greater number of employees to students.

Topic:	Call to Order
Discussion: Betty Lunceford welcomed everyone and brought the meeting to order at	
	approximately 2:03pm.

Topic:	Approval of Minutes		
Discussion:	Members approved the December 11 th minutes, including the changes		
Referred to:			
Status:	☐ Open		☐ Tabled

STANDING AGENDA

THIBITOTICETORY		
Topic:	Standing Agenda Items	
	 Review health and safety inspection reports to help correct hazards. No new information since last meeting. Evaluate incident and hazard reports/investigations conducted since last meeting and determine if the cause(s) of the unsafe situation(s) was identified and corrected. 3 incidents since December meeting (Report at end of minutes). Student experienced fumes in Chemistry Lab. No lasting effects. Employee reported injury while driving campus vehicle. Incident happened in Dec. There was a lapse in reporting. Employee reported injured finger. Was a bruise/finger was pulled away from hand. Reviewed report data from 2016/17 year. Viewed and discussed synopsis of report and Krystal asked for feedback on categories. Evaluate Employee Health and Safety Plan and discuss recommendations for improvement, if needed. This includes the discussion of department and campus- 	
	improvement, if needed. This includes the discussion of department and campus- specific safety plans Krystal has taken the report to various groups and gathered feedback. She	
	 plans to take to the President's cabinet and EPAC. Proposal to have Krystal do presentation for our group Recommendation to propose Central as a Guinea pig and ask District to sponsor. 	



Safety Committee Meeting Minutes

Action:	Committee feedback on Krystal's incident reporting. Specifically the categories.		
Referred to:			
Status:	⊠ Open	☐ Closed	☐ Tabled

UPDATES

Topic:	Updates – AED		
Discussion:	Update action item from I - Manufacturer Cardiac - Last year did a walk th Suggestions were mad - Website has location - Discussion — BPH, FA a Discussion - Recommendation to g - To reevaluate the curr	Science – device has 7 yr war Iru and accessed the current lo de regarding locations and add	cations and accessibility. litions. have no AED devices. or security. ess. Due to cost, possibly
Action:	9 devices will need batteries, 3 pads and we need inspection tags.		
Referred to:	Krystal Nash		
Status:	☑ Open ☐ Closed ☐ Tabled		

Topic:	Updates – OSHA/WISHA Update		
Discussion:	Better ways to gather and use data		
	 Fact sheet regarding improved root cause analysis 		
	- Strategies – creative solutions on messaging how to improve reporting.		
	- Goal – work on closing loop for better reporting.		
	 How to more effectively look at reporting and data. 		
Action:			
Referred to:	Krystal Nash		
Status:	☐ Open		☐ Tabled

NEW & CONTINUED BUSINESS

Topic:	New Business – Emergency Preparedness		
Discussion:	Emergency Preparedness - Evacuation drill taken over by Safety and Security.		
	Discussion – this falls under another committee. This should go to the new Director of		
	Safety and Security once that position has been filled.		
Action:	Emergency Preparedness - Evacuation drill taken over by Safety and Security		
Referred to:	New Director once hired		
Status:	⊠ Open	☐ Closed	☐ Tabled



Safety Committee Meeting Minutes

Discussion:	Proposal to create similar sur			
	Proposal to create similar survey – gather accurate data. Possibly getting access to			
	data from current survey			
Action:				
Referred to:				
Status:	☐ Open	☐ Closed	⊠ Tabled	
Topic:	New Business – Area of Refug	New Business – Area of Refuge Signage		
Discussion:	Installed 2 nd week of December. Signage is ADA compliant.			
Action:				
Referred to:				
Status:	☐ Open		☐ Tabled	
Topic:	New Business – Maritime Ho			
Discussion:	 Homeless have setup 	outside of Maritime facility. Th	nere are 7 to 10 trailers	
	setup and parked. Illeg	gal activity is visible and conce	rning. The police are not	
	following up.			
	 Concern for Safety of 	staff and students. Contracto	rs also concerned.	
	Possible solutions –			
	- Custodial cleanup of garbage and other debris			
	- Better lighting and cameras installed.			
	- Request to have President involved in solution			
	- Possibly install a Honey Bucket			
Action:	Dave Ernevad – will look into installing lighting and cameras			
Referred to:				
Status:	⊠ Open	☐ Closed	☐ Tabled	
Topic:	New Business – Meeting con	tain a Safety Topic		
Discussion:		setting aside time at every me		
	-	ort of training takes place. The		
	safety is fostered. The comm	nittee will take back information	on to our respected areas.	
Action:				
Referred to:				
Status:	⊠ Open	☐ Closed	☐ Tabled	
OPERATIONAL BUSINESS	CONTINUED			
Topic:	Closing & Adjournment			
Discussion:	The committee concluded dis	scussion.		
Action:	The meeting adjourned at ap	proximately 2:46pm.		
Next Meeting:	The next meeting is schedule	d for Monday, February 12, 20	018 at 1:00pm in 4180A.	



Monthly Incident Report

	Type of Report	Jan 2018 – 01/12/2018	Employee	Student	Visitor	EHS	Anon.
16	Chemical Exposure	1	0	1	0	0	0
	TOTAL	1	0	1	0	0	0

Location of Incident/Reported Hazard		
1 Broadway Campus	1	Jan - 1
TOTAL	1	

	EHSP Classification	Description
1	Near-miss	Student was exposed to a chemical during their organic chemistry course. Either sodium iodide in acetone or silver nitrate in ethanol (the acetone or ethanol caused the exposure incident). A small amount of the chemical was removed from the fume hood and placed next to the exposed student. They reported narcotic, over-exposure effects – i.e. light-headedness, slight disorientation – as well as tightness in their chest. All impact was acute; no lasting damage or injury to student. – Days between incident and report: 0 (Reported the same day.) – Safety data sheets for both mixtures are attached.
Fr	om 2017:	·
1	Minor Injury	 Employee driving a college vehicle when it was struck from behind. Resulting injury was "back pain." No incident report is on file for this. The incident occurred on 7/27/2017. The College was notified via workers' compensation paperwork from Labor and Industries at the end of December 2017. Days between incident and report: 174 (as of 1/12/2018)
2	Near-miss	 Employee was moving a box when the cardboard broke and caught their middle, right finger. The weight of the box pushed down on their finger and pulled the digit away from their hand. They reported the incident to their supervisor when it happened (12/19/17) but did not fill out an IR because they did not believe there was an injury. The IR (submitted 1/10/18) was later submitted due to pain in the hand and tenderness that made it difficult to complete routine tasks. Days between incident and report: 21

Follow-up/Resolution:

EHS has requested an Incident Report for the response to the BE flood but has not received documentation to date (approximately 14 weeks post-incident). Associated reports from employees involved in the clean-up/repairs that were exposed to propylene glycol were requested and one employee has completed an IR.



Monthly Incident Report

- 1. Major Injury: an injury sustained that results in a fatality, in-patient hospitalization, amputation, or loss of eye(s).
- 2. Minor Injury: an injury sustained that requires emergency medical treatment that could include, but is not limited to, a bone break or fracture, burn, or laceration; <u>or</u> an injury that required a visit to an employee's personal doctor or an out-patient clinic.
- 3. Work-Related Illness: includes both acute and chronic illness due to a chemical or environmental exposure at work that could include, but is not limited to, skin disease, respiratory disorder, or poisoning.
- 4. Near-miss: an incident that could have resulted in injury <u>or</u> resulted in injury that either did not need medical treatment or could be self-treated with the contents of a workplace first aid kit.
- 5. Workplace Hazard: any condition or process identified by an individual that has either immediate or future potential to cause a workplace injury, illness, or near-miss.

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Sodium Iodide, 10% (w/v) in Acetone

Product Number: R7491100

Other Identifying Product Numbers: R7491100-1B

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company: Ricca Chemical Company

Address: 448 West Fork Drive

Arlington, TX 76012 USA

Telephone: 888-467-4222

1.4. Emergency Telephone Number (24 hr)

CHEMTREC (USA) 800-424-9300 CHEMTREC (International) 1+ 703-527-3887

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

		Hazard	
Hazard Class	Category	Statement	Precautionary Statements
Eye Damage / Irritation	Category 2A	H319	P264, P280, P305+P351+P338, P337+P313
Skin Sensitizer	Category 1	H317	P261, P272, P280, P302+P352, P332+P313, P321, P363, P501
Reproductive Toxicity	Category 2	H361	P201, P202, P280, P308+P313, P405, P501
Specific Target Organs/Systemic Toxicity Following Repeated Exposure	Category 1	H372	P260, P264, P270, P314, P501
Flammable Liquids	Category 2	H225	P210, P233, P240, P241, P242, P243, P280, P303+P361+P353, P370+P378, P403+P235, P501
Hazardous to the Aquatic Environment (Acute)	Category 2	H401	P273, P501

Product Number: R7491100 Page 1 of 12



2.2. GHS Label Elements

Pictograms:







Signal Word: Danger

Hazard Statements:

Hazard Number	Hazard Statement
H225	Highly flammable liquid and vapor.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.

Product Number: R7491100 Page 2 of 12

Precautionary Statements:

Precautionary Statements:	
Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, sparks and open flame. No smoking.
P233	Keep container tightly closed.
P240	Ground container and receiving equipment.
P241	Use explosion-proof equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe fumes, mist, vapors, or spray.
P261	Avoid breathing fumes, mist, vapors, or spray.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing must not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy
	to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical attention.
P314	Get medical attention if you feel unwell.
P321	Specific treatment (Wash areas of contact with water).
P332+P313	If skin irritation occurs: Get medical attention.
P337+P313	If eye irritation persists: Get medical attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

Product Number: R7491100 Page 3 of 12

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Acetone	(CH ₃) ₂ CO	58.07 g/mol	67-64-1	88.89%
Sodium Iodide	Nal	149.89 g/mol	7681-82-5	11.11%

SECTION 4: First-Aid Measures

4.1. General First Aid Information

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

rinsing. May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Results in drying and cracking

which can lead to secondary infections and dermatitis. Dermal absorption causes many of the symptoms of inhalation.

Ingestion: Aspiration hazard. Do not induce vomiting, vomiting may occur spontaneously. If vomiting occurs, keep head below hips to

prevent aspiration into lungs. Call a physician.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Flammable liquid. Harmful if swallowed or inhaled. If ingested, vomiting may occur spontaneously, but do not induce. Call a physician immediately. Causes irritation to the eyes, skin and respiratory tract. Wash areas of contact with water. May affect central nervous system. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: Results in drying and cracking which can lead to secondary infections and dermatitis. Dermal absorption causes many of the symptoms of inhalation. CHRONIC EFFECTS / CARCINOGENICITY: Repeated ingestion of Triethanolamine has caused liver and kidney damage in animals.

4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water).

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Dry chemical, alcohol foam, carbon dioxide

5.2. Specific Hazards Arising from the Substance or Mixture

Highly flammable liquid and vapor. Vapors may produce flash fires. Vapors can flow along surfaces to distant ignition source and flash back. Explosion hazard when exposed to heat, flame or oxidizers.

5.3. Special Protective Equipment for Firefighters

Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Product Number: R7491100 Page 4 of 12



SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Remove all sources of ignition. Contain spill. Absorb in suitable material (vermiculite, dry sand, etc.) for disposal in a RCRA approved waste disposal facility. Ventilate area of spill. Do not flush to sewer.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Store in secure, flammable storage area away from all sources of ignition. Empty containers may be hazardous since they retain product residues. Use non-sparking tools and equipment.

SECTION 8: Exposure Controls / Personal Protection

8.1. Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Acetone (67-64-1)	TWA	USA	1000 ppm TWA	U.S OSHA - Final PELs - Time
			2400 mg/m³ TWA	Weighted Averages (TWAs)
Acetone (67-64-1)	TLV-STEL	USA	500 ppm STEL	ACGIH - Threshold Limit Values - Short
				Term Exposure Limits (TLV-STEL)
Acetone (67-64-1)	TLV-TWA	USA	250 ppm TWA	ACGIH - Threshold Limit Values - Time
				Weighted Averages (TLV-TWA)
Sodium Iodide (7681-82-5)	TLV-TWA	USA	0.01 ppm TWA (inhalable fraction and	ACGIH - Threshold Limit Values - Time
			vapor)	Weighted Averages (TLV-TWA)

8.2. Exposure Controls

Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne

Exposure Limit.

Respiratory Protection: If the TLV is exceeded, a half-mask organic vapor respirator may be worn for up to 10 times the exposure limit or

the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full facepiece organic vapor respirator may be worn for up to 50 times the exposure limit, or the

maximum use concentration specified by the respirator supplier, whichever is lowest.

Skin Protection: Wear protective gloves and eye protection. Chemical resistant gloves.

Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles.

Product Number: R7491100 Page 5 of 12



8.3. Personal Protective Equipment

Wear protective gloves and eye protection. If the TLV is exceeded, a half-mask organic vapor respirator may be worn for up to 10 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full facepiece organic vapor respirator may be worn for up to 50 times the exposure limit, or the maximum use concentration specified by the respirator supplier, whichever is lowest. Chemical resistant gloves. Safety glasses or goggles.

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Colorless to yellow liquid

Physical State: Liquid

Odor: Data not available.

Odor Threshold: Data not available.

pH: Data not available.

Melting/Freezing Point: Data not available.

Initial Boiling Point /Range: Approximately 56°C - Approximately 56°C

Flash Point: -18°C

Evaporation Rate: Data not available.

Flammability: Data not available.

Flammability/Explosive Limits: Data not available.

Vapor Pressure: Data not available.

Vapor Density: Data not available.

Relative Density: 0.9

Solubility: Data not available.

Partition Coefficient (n-Octanol/Water): Data not available.

Auto-Ignition Temperature: Data not available.

Decomposition Temperature: Data not available.

Viscosity: Data not available.

ExplosiveProperties: Data not available.

Oxidizing Properties: Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

Product Number: R7491100 Page 6 of 12

10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Oxidizers, Nitric Acid-Sulfuric Aid mixtures, Acids, Chromium Trioxide, Sulfuric Acid-Potassium Dichromate, Hydrogen Peroxide, Chloroform and a base, Sodium Hypobromate, heat, sparks, open flame, Copper, Copper alloys, Galvanized Iron.

10.4. Hazardous Decomposition Products

Will not occur.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LD50, Oral, Rat: (Acetone) 5800 mg/kg, behavioral affects noted; (Sodium Iodide) 4340 mg/kg, details of toxic effects not reported other than lethal dose value.

Skin Corrosion and Irritation:

Not applicable.

Serious Eye Damage and Irritation:

Causes serious eye irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. 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 attention.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

May cause an allergic skin reaction. Avoid breathing fumes, mist, vapors, or spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Specific treatment (Wash areas of contact with water). Wash contaminated clothing before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

Not applicable.

Product Number: R7491100 Page **7** of **12**

Reproductive Toxicity:

Suspected of damaging fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

Specific Target Organ Toxicity from Repeated Exposure:

Causes damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Toxic to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

Product Number: R7491100 Page 8 of 12



SECTION 14: Transportation Information

14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

Sizes: 1L

UN Number: UN1090

Proper Shipping Name: Acetone Solution

Hazard Class: 3

Packing Group:

Hazard Placard Labels:



Sizes:

UN Number:

Proper Shipping Name:

Hazard Class:

Packing Group:

Hazard Placard Labels:

14.2. Transportation by Air - International Air Transport Association (IATA)

Sizes: 1L

UN Number: UN1090

Proper Shipping Name: Acetone Solution

Hazard Class: 3
Packing Group: ||

Packing Group.

Hazard Placard Labels:



SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

Product Number: R7491100 Page 9 of 12

- 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances Not listed.
- 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals
 Acetone (CAS # 67-64-1): 5000 lb final RQ; 2270 kg final RQ
- 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

 Not listed.
- 15.5. Massachusetts Right-to-Know Substance List

Acetone (CAS # 67-64-1): Present

15.6. Pennsylvania Right-to-Know Hazardous Substances

Acetone (CAS # 67-64-1): Environmental hazard Acetone (CAS # 67-64-1): Present

15.7. New Jersey Worker and Community Right-to-Know Components

Acetone (CAS # 67-64-1): flammable - third degree Acetone (CAS # 67-64-1): sn 0006

15.8. California Proposition 65

Not listed.

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Acetone (CAS # 67-64-1): Present (DSL) Sodium Iodide (CAS # 7681-82-5): Present (DSL)

15.10. United States of America Toxic Substances Control Act (TSCA) List

Acetone (CAS # 67-64-1): Present Sodium Iodide (CAS # 7681-82-5): Present

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS),
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Not listed.

Product Number: R7491100 Page **10** of **12**



SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

Highly flammable liquid and vapor. May cause an allergic skin reaction. Causes serious eye irritation. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves and eye protection.

IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water). If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Wash contaminated clothing before reuse. In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.

Store in a well-ventilated place. Keep cool. Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.

16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

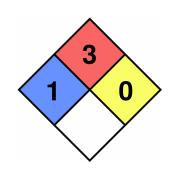
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

Health Hazards Not Otherwise Classified (HHNOC): Not Applicable.

Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

Health: 1
Flammability: 3
Reactivity: 0
Special Hazard:



Product Number: R7491100 Page 11 of 12

16.4. Document Revision

Last Revision Date: 5/1/2015

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.

Product Number: R7491100 Page 12 of 12

Dec. 09, 2015

SECTION 1 — CHEMICAL PRODUCT AND IDENTIFICATION

Ethanolic Silver Nitrate (1%)

Copper Mountain College, 6162 Rotary Way, Joshua Tree, CA 92252 760 366-3791 (mixed using Flinn Sci. Chemicals) CHEMTREC Emergency Phone Number: (800) 424-9300

Pictogarams

SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Flammable liquids (Category 2). Highly flammable liquid and vapor (H225). Keep away from heat, sparks, open flames, and hot surfaces. No smoking (P210).

Hazard class: Acute toxicity, oral (Category 4). Harmful if swallowed (H302). Do not eat, drink or smoke when using this product (P270).

Hazard class: Skin corrosion or irritation (Category 1). Causes severe skin burns and eye damage (H314).

Hazard class: Specific target organ toxicity, single exposure; respiratory tract irritation (Category 3). May cause respiratory irritation (H335). Avoid breathing mist, vapors or spray (P261).

Hazard class: Specific target organ toxicity, single exposure (Category 1). Causes damage to organs (H370). Addition of denaturant makes the product poisonous. Cannot be made nonpoisonous.









SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Ethyl alcohol	64-17-5	C_2H_5OH	46.07	79-86%
Isopropyl alcohol	67-63-0	C_3H_8O	60.10	8-9%
Methyl alcohol	67-56-1	CH₃OH	32.04	3-5%
Methyl isobutyl ketone	108-10-1	$C_6H_{12}O$	100.16	<1%
Water	7732-18-5	· ·	18.00	4-5%
Silver Nitrate	7761-88-8	H ₂ O AgNO3	169.87	1%

SECTION 4 — FIRST AID MEASURES

If exposed or concerned: Call a POISON CENTER or physician (P307+P311).

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). If eye irritation persists: Get medical advice or attention (P337+P313). If on skin (or hair): Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353).

If swallowed: Rinse mouth. Call a POISON CENTER or physician or poison control IMMEDIATELY

SECTION 5 — FIRE FIGHTING MEASURES

Class IB flammable liquid due to ethyl alcohol content.	NFPA CODE
Flash point: 16-21 ° C	H-2
When heated, releases flammable fumes.	F-3
In case of fire: Use a tri-class dry chemical fire extinguisher (P370+P378).	R-0

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Remove all ignition sources and ventilate area. Contain the spill with sand or other inert absorbent material and deposit in a sealed bag or container. See Sections 8 and 13 for further information.

SDS #: 326.00

Revision Date: March 21, 2014

SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Organic #2. Store with alcohols, glycols, amines and amides. Store in a dedicated flammables cabinet. If a flammables cabinet is not available, store in Flinn Saf-StorTM can.

Keep container tightly closed and cool (P233+P235). Use explosion-proof electrical and ventilating equipment (P241). Take precautionary measures against static discharge (P243).

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264). Use only in a hood or well-ventilated area (P271).

Ethanol: Exposure guidelines: (as ethyl alcohol) PEL 1000 ppm (OSHA), Ceiling 1000 ppm (ACGIH) Silver Nitrate: Exposure guidelines: PEL/TLV 0.01 mg/m3 (OSHA, ACGIH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Clear liquid. Strong alcohol odor.

Soluble: Miscible with water and many organic solvents.

Boiling point: 78 °C Melting point: -144 °C Specific gravity: 0.7893

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with oxidizing agents, peroxides, acids, acid chlorides, acid anhydrides, alkali metals, ammonia, moisture, heat, open flame, or any source of ignition.

Shelf life: Excellent, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Ethyl Alcohol

Acute effects: Eye damage, nausea, dizziness, headache Chronic effects: Liver damage, reproductive, teratogenic effects, carcinogen.

Target organs: Eyes, skin, central nervous system, liver, reproductive system.

ORL-RAT LD $_{50}$: 7060 mg/kg (as ethyl alcohol) IHL-RAT LC $_{50}$: 20,000 ppm/10H (as ethyl alcohol) SKN-RBT LD $_{50}$: N.A.

Silver Nitrate: Acute effects: Diarrhea, cyanosis ORL-RAT LD50: 1173 mg/kg Chronic effects: Argyrosis

SECTION 12 — ECOLOGICAL INFORMATION

Data not available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding. Suggested Disposal Method: Heavy Metal Disposal

SECTION 14 — TRANSPORT INFORMATION

Shipping name: N/A

SECTION 15 — REGULATORY INFORMATION

Ethanol: TSCA-listed, EINECS-listed (200-578-6), RCRA code D001. Silver Nitrate: EINECS-listed (231-853-9), RCRA code D001, D011.

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information provided from Flinn Scientific, Inc. Ethyl Alcohol and Silver Nitrate SDS.

Consult Flinn Scientific SDS sheets on Ethyl Alcohol and Silver Nitrate for more information.