

**Material Safety Data Sheet**  
**Clarifier 2**

**Section 1 - Chemical Product and Company Identification**

**MSDS Name:**

Clarifier 2

**Catalog Numbers:**

220-108, 7402, 7442, 7442E

**Synonyms:**

None Known.

**Company Identification:**

Richard Allan Scientific  
4481 Campus Drive  
Kalamazoo, MI 49008

**Company Phone Number:**

800-522-7270

**Emergency Phone Number:**

800-424-9300

**CHEMTREC Phone Number, US:**

(800) 424-9300

**CHEMTREC Phone Number, Europe:**

(202) 483-7616

**Section 2 - Composition, Information on Ingredients**

CAS#	Chemical Name:	Percent	EINECS/ ELINCS	Hazard Symbols	Risk Phrases
7732-18-5	Water	94-97	231-791-2		
64-19-7	Acetic acid	3-6	200-580-7		

**Section 3 - Hazards Identification**

**EMERGENCY OVERVIEW**

*Appearance: Colorless liquid*

*Caution! May cause respiratory and digestive tract irritation. May cause eye and skin irritation.*

*Target Organs: Teeth*

**Potential Health Effects**

**Eye:**

May cause eye irritation and possible damage.

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**Skin:**

May cause severe skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

**Ingestion:**

May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:**

Effects may be delayed. May cause respiratory tract irritation.

**Chronic:**

Prolonged or repeated skin contact may cause dermatitis. Repeated inhalation may cause chronic bronchitis. Repeated exposure may cause erosion of teeth. May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects.

**Section 4 - First Aid Measures**

**Eyes:**

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:**

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:**

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:**

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:**

Treat symptomatically and supportively.

**Section 5 - Fire Fighting Measures**

**General Information:**

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Reacts with most metals to form highly flammable hydrogen gas which can form explosive mixtures with air.

**Extinguishing Media:**

Use extinguishing media most appropriate for the surrounding fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Autoignition Temperature:**

Not applicable.

**Explosion Limits:**

Lower: Not available      Upper: Not available

**Flash Point:**

Not applicable.

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**NFPA Rating:**

(estimated) Health: 1; Flammability: 0; Instability: 0

**Section 6 - Accidental Release Measures**

**General Information:**

Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

**Section 7 - Handling and Storage**

**Handling:**

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

**Storage:**

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

**Section 8 - Exposure Controls, Personal Protection**

**Engineering Controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits**

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None listed	None listed	None listed
Acetic acid	10 ppm TWA; 15 ppm STEL	10 ppm TWA; 25 mg/m <sup>3</sup> TWA 50 ppm IDLH	10 ppm TWA; 25 mg/m <sup>3</sup> TWA;

**OSHA Vacated PELs**

Acetic acid: 10 ppm TWA; 25 mg/m<sup>3</sup> TWA

**Personal Protective Equipment**

**Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:**

Wear appropriate protective gloves to prevent skin exposure.

**Clothing:**

Wear appropriate protective clothing to prevent skin exposure.

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**Respirators:**

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

**Section 9 - Physical and Chemical Properties**

**Physical State:** Liquid  
**Color:** Colorless  
**Odor:** None reported  
**pH:** No information found  
**Vapor Pressure:** No information found  
**Vapor Density:** No information found  
**Evaporation Rate:** No information found  
**Viscosity:** No information found  
**Boiling Point:** No information found  
**Freezing/Melting Point:** No information found  
**Decomposition Temperature:** No information found  
**Solubility in water:** No information found  
**Specific Gravity/Density:** No information found  
**Molecular Formula:** Solution  
**Molecular Weight:** No information found

**Section 10 - Stability and Reactivity**

**Chemical Stability:**

Stable under normal temperatures and pressures.

**Conditions to Avoid:**

Incompatible materials, excess heat

**Incompatibilities with Other Materials**

Metals, oxidizing agents, acids, bases, acetic anhydride, alcohols, amines, ammonium nitrate, bromine trifluoride, chlorine trifluoride, nitric acid, permanganates, sodium hydroxide, sodium peroxide, hydrogen peroxide, acetaldehyde, acid anhydrides, chlorosulfonic acid, oleum, potassium hydroxide, perchloric acid, potassium tert-butoxide, ethyleneimine, 2-aminoethanol, ethylene diamine, phosphorus trichloride, chromic acid anhydride, phosphorus isocyanate, diallyl methyl carbinol + ozone, nitric acid + acetone, xylene

**Hazardous Decomposition Products**

Carbon monoxide, carbon dioxide

**Hazardous Polymerization**

Has not been reported.

**Section 11 - Toxicological Information**

**RTECS:**

CAS# 7732-18-5: ZC0110000  
CAS# 64-19-7: AF1225000

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**LD50/LC50:**

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 64-19-7:

Draize test, rabbit, skin: 50 mg/24H Mild

Inhalation, mouse: LC50 = 5620 ppm/1H

Oral, rat: LD50 = 3310 mg/kg

Skin, rabbit: LD50 = 1060 uL/kg.

**Carcinogenicity:**

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 64-19-7: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:**

No information available.

**Teratogenicity:**

Effects on Newborn: behavioral, orl-rat TDLo=700 mg/kg for acetic acid.

**Reproductive:**

Fertility: male index, itt-rat TDLo=400 mg/kg for acetic acid.

**Mutagenicity:**

No information available.

**Neurotoxicity:**

No information available.

**Other:**

See actual entry in RTECS for complete information.

**Section 12 - Ecological Information**

**Ecotoxicity:**

Fish: Bluegill/Sunfish: TLm = 100; Unspecified; CAS# 64-19-7 Fresh water

Fish: Goldfish: TLm = 75 ppm; 96 Hr; CAS# 64-19-7 Fresh water

Acetic acid: Bluegill (fresh water) TLm=75 ppm/96H Goldfish (fresh water) TLm=100 ppm/96H Shrimp (aerated water) LC50=100-330 ppm/48H

**Environmental:**

Acetic acid spreads on soil surface and penetrates at rate dependent on soil type and water content. It readily degrades in water and shows little potential for bioaccumulation.

**Physical:**

No information available.

**Other:**

None.

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**Section 13 - Disposal Considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P Series Wastes**

None of the components are on this list.

**RCRA U Series Wastes**

None of the components are on this list.

**Section 14 - Transport Information**

**US DOT**

**Canadian TDG**

**Proper Shipping Name:** Not Regulated

Not Regulated

**Hazard Class:**

**UN Number:**

**Packing Group:**

USA RQ: CAS# 64-19-7: 5000 lb final RQ; 2270 kg final RQ

**Section 15 - Regulatory Information**

**US Federal**

**TSCA**

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 64-19-7 is listed on the TSCA Inventory.

**Health and Safety Reporting List**

None of the components are on this list.

**Chemical Test Rules**

None of the components are on this list.

**TSCA Section 12b**

None of the components are on this list.

**TSCA Significant New Use Rule (SNUR)**

None of the components are on this list.

**CERCLA Hazardous Substances and corresponding RQs**

CAS# 64-19-7: 5000 lb final RQ; 2270 kg final RQ

**SARA Section 302 Extremely Hazardous Substances**

None of the components are on this list.

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**SARA Hazard Categories**

CAS# 64-19-7: immediate, delayed, fire.

**SARA Section 313**

None of the components are on this list.

**Clean Air Act - Hazardous Air Pollutants (HAPs)**

None of the components are on this list.

**Clean Air Act - Class 1 Ozone Depleters**

None of the components are on this list.

**Clean Air Act - Class 2 Ozone Depleters**

None of the components are on this list.

**Clean Water Act - Hazardous Substances**

CAS# 64-19-7 is listed as a Hazardous Substance under the CWA.

**Clean Water Act - Priority Pollutants**

None of the components are on this list.

**Clean Water Act - Toxic Pollutants**

None of the components are on this list.

**OSHA - Highly Hazardous**

None of the components are on this list.

**OSHA - Specifically Regulated Chemicals**

None of the components are on this list.

**US State**

**State Right to Know**

Acetic acid can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

**California Prop 65**

None of the components are on this list.

**California No Significant Risk Level**

None of the components are on this list.

None of the components are on this list.

**European/International Regulations**

**European Labelling in Accordance with EC Directives:**

Hazard Symbols: None listed

Risk Phrases: None listed

Safety Phrases: S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**

No information found

**United Kingdom Occupational Exposure Limits**

No information found

**United Kingdom Maximum Exposure Limits**

No information found

**Canadian DSL/NDSL**

CAS# 7732-18-5 is listed on Canada's DSL List.

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CAS# 64-19-7 is listed on Canada's DSL List.

**Canadian WHMIS Classifications**

No information found

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 64-19-7 is listed on the Canadian Ingredient Disclosure List.

**Section 16 - Other Information**

Color information has been  
MSDS Creation Date: July 6, 2006  
Revision Date: July 6, 2006

**Revisions were made in Sections:**

2, 3, 9, 10, 14, 16

*This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from us, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from us, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.*