Material Safety Data Sheet

Creation Date 11-Aug-2010 **Revision Date** 11-Aug-2010 **Revision Number** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **Clarifier 2**

Cat No. **7402; 7402L, 7442**

Synonyms No information available.

Recommended Use Laboratory chemicals

Company
Richard Allan Scientific
A Subsidiary of Thermo Fisher Scientific
4481 Campus Drive
Kalamazoo, MI 49008
Tel: (800) 522-7270

Emergency Telephone Number
Chemtrec US: (800) 424-9300
Chemtrec EU: 001 (202) 483-7616

2. HAZARDS IDENTIFICATION

CAUTION!

Emergency Overview

May cause eye, skin, and respiratory tract irritation . The toxicological properties have not been fully investigated.

Appearance Colorless **Physical State** Liquid **odor** odorless

Target Organs None known.

Potential Health Effects

Acute Effects
Principle Routes of Exposure

Eyes	May cause irritation
Skin	May cause irritation
Inhalation	May cause irritation of respiratory tract. May be harmful if inhaled.
Ingestion	May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects Tumorigenic effects have been reported in experimental animals.. Experiments have shown reproductive toxicity effects on laboratory animals.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Water	7732-18-5	94 - 97
Acetic acid	64-19-7	3 - 6

4. FIRST AID MEASURES

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.

Ingestion Do not induce vomiting. Obtain medical attention.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point Not applicable
Method No information available.

Autoignition Temperature No information available.

Explosion Limits
Upper No data available
Lower No data available

Suitable Extinguishing Media Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..

Unsuitable Extinguishing Media No information available.

Hazardous Combustion Products No information available.

Sensitivity to mechanical impact No information available.
Sensitivity to static discharge No information available.

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors.

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

NFPA **Health** 1 **Flammability** 0 **Instability** 0 **Physical hazards** N/A

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Soak up with inert absorbent material. Keep in suitable and closed containers for disposal.

7. HANDLING AND STORAGE

Handling Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetic acid	TWA: 10 ppm STEL: 15 ppm	(Vacated) TWA: 10 ppm (Vacated) TWA: 25 mg/m^3 TWA: 25 mg/m^3 TWA: 10 ppm	IDLH: 50 ppm TWA: 25 mg/m^3 TWA: 10 ppm STEL: 15 ppm STEL: 37 mg/m^3

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Acetic acid	TWA: 10 ppm TWA: 25 mg/m^3 STEL: 37 mg/m^3 STEL: 15 ppm	TWA: 10 ppm TWA: 25 mg/m^3 STEL: 37 mg/m^3 STEL: 15 ppm	TWA: 10 ppm TWA: 25 mg/m^3 STEL: 37 mg/m^3 STEL: 15 ppm

NIOSH IDLH: *Immediately Dangerous to Life or Health*

Personal Protective Equipment

Eye/face Protection 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 and body protection Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Colorless
odor	odorless
Odor Threshold	No information available.
pH	No information available.
Vapor Pressure	No information available.
Vapor Density	No information available.
Viscosity	No information available.
Boiling Point/Range	No information available.
Melting Point/Range	No information available.
Decomposition temperature	No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash Point	Not applicable
Evaporation Rate	No information available.
Specific Gravity	No information available.
Solubility	No information available.
log Pow	No data available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat.
Incompatible Materials	Metals, Oxidizing agents, Acids, Bases, Alcohols, Amines, Acid anhydrides
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO_2), Thermal decomposition can lead to release of irritating gases and vapors
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	90 mL/kg (Rat)	Not listed	Not listed
Acetic acid	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h

Irritation	No information available.
Toxicologically Synergistic Products	No information available.

Chronic Toxicity

Carcinogenicity	There are no known carcinogenic chemicals in this product
Sensitization	No information available.
Mutagenic Effects	No information available.
Reproductive Effects	Experiments have shown reproductive toxicity effects on laboratory animals.
Developmental Effects	No information available.

Teratogenicity Teratogenic effects have occurred in experimental animals..

Other Adverse Effects Tumorigenic effects have been reported in experimental animals.. See actual entry in RTECS for complete information.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Water	EC50: 13 mg/L 72h	Not listed	Not listed	Not listed
Acetic acid	Not listed	Pimephales promelas: LC50 = 88 mg/L/96h Lepomis macrochirus: LC50 = 75 mg/L/96h	Photobacterium phosphoreum: EC50 = 8.8 mg/L/15 min Photobacterium phosphoreum: EC50 = 8.8 mg/L/25 min Photobacterium phosphoreum: EC50 = 8.8 mg/L/5 min	EC50 = 95 mg/L/24h

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility .

Component	log Pow
Water	-1.87
Acetic acid	-0.2

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG/IMO Not regulated

14. TRANSPORT INFORMATION

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Water	X	X	-	231-791-2	-		X	-	X	X	X
Acetic acid	X	X	-	200-580-7	-		X	X	X	X	KE-00013 X

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313
Not applicable

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act
Not applicable

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Acetic acid	X	5000 lb	-	-

Clean Air Act
Not applicable

OSHA
Not applicable

CERCLA
Not Applicable

Component	Hazardous Substances RQs	CERCLA EHS RQs
Acetic acid	5000 lb	-

California Proposition 65
This product does not contain any Proposition 65 chemicals.

State Right-to-Know
Not applicable

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Acetic acid	X	X	X	-	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada

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

WHMIS Hazard Class
Non-controlled

16. OTHER INFORMATION

Prepared By

Regulatory Affairs
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Disclaimer

The information provided on this Safety Data Sheet 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