

Safety Data Sheet Revision Date 14-Feb-2012

Creation Date 14-Feb-2012

CAUTION!

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

| Product Name | Clarifier 2, Fisher Pinnacle Portfolio |
|---|--|
| Cat No. | 22050117; 22050119; 22220108; 23005258; 7402L |
| 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

| 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 Skin Inhalation Ingestion | May cause irritation May cause irritation May cause irritation of respiratory tract. May be harmful if inhaled. May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, i and diarrhea. | nausea, vomiting |
| Chronic Effects | Tumorigenic effects have been reported in experimental animals Experimental animals Experimental reproductive toxicity effects on laboratory animals. | its have shown |
| See Section 11 for additional Toxicolo | gical information. | |
| Aggravated Medical Conditions | No information available. | |

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

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

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 Method | Not applicable No information available. |
|---|--|
| Autoignition Temperature Explosion Limits Upper Lower | No information available. No data available 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 Sensitivity to static discharge | No information available. 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 | | | | |

| | 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, 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 | (Vacated) TWA: 10 ppm | IDLH: 50 ppm |
| | STEL: 15 ppm | (Vacated) TWA: 25 mg/m ³ | TWA: 10 ppm |
| | | TWA: 10 ppm | TWA: 25 mg/m ³ |
| | | TWA: 25 mg/m ³ | STEL: 15 ppm |
| | | Ű | STEL: 37 mg/m ³ |

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

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

Skin and body protection Respiratory 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 Wear appropriate protective gloves and clothing to prevent skin exposure 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 Appearance odor Odor Threshold pH Liquid Colorless odorless No information available. No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure Vapor Density Viscosity Boiling Point/Range Melting Point/Range Decomposition temperature Flash Point Evaporation Rate Specific Gravity Solubility log Pow No information available. 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

| LD50 Oral | LD50 Dermal | LC50 Inhalation |
|------------------|---------------------|--------------------------------------|
| 3310 mg/kg (Rat) | 1060 mg/kg (Rabbit) | 11.4 mg/L (Rat)4 h |
| - | | 3310 mg/kg (Rat) 1060 mg/kg (Rabbit) |

| Irritation | No information available. |
|--|---|
| Toxicologically Synergistic Products | No information available. |
| <u>Chronic Toxicity</u> 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 |
|-------------|------------------|-----------------------------|-------------------------|--------------------|
| Acetic acid | Not listed | Pimephales promelas: LC50 | Photobacterium | EC50 = 95 mg/L/24h |
| | | = 88 mg/L/96h | phosphoreum: EC50 = 8.8 | |
| | | Lepomis macrochirus: LC50 = | mg/L/15 min | |
| | | 75 mg/L/96h | Photobacterium | |
| | | - | phosphoreum: EC50 = 8.8 | |
| | | | mg/L/25 min | |
| | | | Photobacterium | |
| | | | phosphoreum: EC50 = 8.8 | |
| | | | mg/L/5 min | |

Persistence and Degradability

No information available

No information available

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Bioaccumulation/ Accumulation

Mobility

| Component | log Pow |
|-------------|---------|
| Acetic acid | -0.2 |

13. DISPOSAL CONSIDERATIONS

Waste Disposal MethodsChemical 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

14. TRANSPORT INFORMATION

ΙΑΤΑ

Not regulated

IMDG/IMO

Not regulated

15. REGULATORY INFORMATION

International Inventories

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

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 | Х | 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 | Х | Х | Х | - | Х |

U.S. Department of Transportation

| Reportable Quantity (RQ): | Ν |
|-----------------------------|---|
| DOT Marine Pollutant | Ν |
| DOT Severe Marine Pollutant | Ν |

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 SDS contains all the information required by the CPR.

WHMIS Hazard Class Non-controlled

16. OTHER INFORMATION

| Prepared By | Regulatory Affairs Richard Allan Scientific A Subsidiary of Thermo Fisher Scientific Tel: (800) 522-7270 |
|------------------|---|
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| Revision Summary | "***", and red text indicates revision |

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 SDS