

SAFETY DATA SHEET

Issuing date 2013-11-20

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Version 1

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name: INDUSTREX Manual Fixer
INDUSTREX Manual Fixer Replenisher

Product code: 1057017FIX

Supplier Carestream Health, Inc., 150 Verona Street, Rochester, New York 14608

Emergency telephone number
CHEMTREC: +1-703-527-3887 (INTERNATIONAL)
1-800-424-9300 (NORTH AMERICA)

For other information contact: 800-328-2910

Product Use: Photographic chemical. Restricted to professional users.

2. HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye Irritation

Category 2A

Label Elements

Emergency Overview

Signal Word

Warning

Hazard statements

Causes serious eye irritation



Appearance Colorless

Physical state liquid

Odor Odorless

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection.

Precautionary Statement - Response

IF exposed or concerned.

Eyes

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 advice/attention.

Hazards not otherwise classified (HNOC)

- not applicable

Other information

3.5% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS-No | Weight % | Trade Secret |
|---|------------|----------|--------------|
| Water 7732-18-5 | 7732-18-5 | 50-60 | * |
| Ammonium thiosulfate 7783-18-8 | 7783-18-8 | 20-30 | * |
| Sodium thiosulfate pentahydrate 10102-17-7 | 10102-17-7 | 15-20 | * |
| Sodium metabisulfite 7681-57-4 | 7681-57-4 | 1-5 | * |
| Sodium acetate 127-09-3 | 127-09-3 | 1-5 | * |

*The exact percentages (concentrations) have been withheld as trade secrets.

4. FIRST AID MEASURES

First Aid Measures

- General advice** If symptoms persist, call a physician.
- Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if symptoms occur.
- Skin contact** Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Get medical attention immediately if symptoms occur.
- Inhalation** Move to fresh air. Get medical attention immediately if symptoms occur.
- Ingestion** If swallowed, call a poison control center or doctor immediately. Do not induce vomiting without medical advice. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Main Symptoms Irritation.

Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂). Dry powder. Water spray.

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Dried product residue can act as a reducing agent. Reacts violently with oxidizing materials. May cause spontaneous heating and ignition when absorbed on combustible, porous material (e.g. rags, paper, sawdust, cotton, clothing).

Hazardous Combustion Products

Carbon oxides, Nitrogen oxides (NOx),

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 Ensure adequate ventilation. Use personal protective equipment.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep container tightly closed in a dry and well-ventilated place.

Incompatible products Acids. Strong bases. Oxidizing agents. Halogenated compounds. Sodium hypochlorite.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs | OSHA PEL | Advisory OEL |
|---------------|-----------|---|----------|--------------|
| | | | | |

| | | | | |
|-----------------------------------|--------------------------|--|---|--|
| Sodium metabisulfite 7681-57-4 | TWA: 5 mg/m ³ | | - | |
|-----------------------------------|--------------------------|--|---|--|

Appropriate engineering controls

Engineering Measures Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits. Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Safety glasses with side-shields. If splashes are likely to occur, wear:: Goggles.
- Skin and body protection** Wear protective gloves/clothing.
- Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|--------------------------|--------------------------|--------------------------|
| Physical state | liquid | Odor | Odorless |
| Appearance | Colorless | Odor Threshold | No information available |
| Color | colorless | | |
| Property | Values | Remarks/ • Method | |
| ph | 5.7 | No information available | |
| Melting point/range: | | No information available | |
| Boiling point/boiling range | > 100 °C | No information available | |
| Flash Point | | Does not flash. | |
| Evaporation rate | | No information available | |
| Flammability (solid, gas) | | | |
| upper flammability limit | | | |
| lower flammability limit | | | |
| Vapor pressure | 23 hPa @ 20 °C | No information available | |
| Vapor density | | No information available | |
| Specific Gravity | | No information available | |
| Water Solubility | Miscible with water | No information available | |
| Solubility in other solvents | | No information available | |
| Partition coefficient: n-octanol/water | | No information available | |
| Autoignition temperature | | No information available | |
| Decomposition temperature | | No information available | |
| Viscosity, kinematic | | No information available | |
| Viscosity, dynamic | | No information available | |
| Explosive properties | No information available | | |
| Oxidizing Properties | No information available | | |
| Other information | | | |
| Softening point | No information available | | |
| Density VALUE | 1.338 | | |
| Bulk Density VALUE | No information available | | |

10. STABILITY AND REACTIVITY

Reactivity

None under normal use conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous polymerization does not occur. May cause spontaneous heating and ignition when absorbed on combustible, porous material (e.g. rags, paper, sawdust, cotton, clothing). Contact with strong acids liberates sulfur dioxide. Contact with sodium hypochlorite (bleach) may form chloramine (toxic gas).

Conditions to Avoid

None known based on information supplied.

Incompatible Materials

Acids. Strong bases. Oxidizing agents. Halogenated compounds. Sodium hypochlorite.

Hazardous Decomposition Products

Ammonia. Chloramine. Sulfur oxides. Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

| | |
|---------------------|---|
| Inhalation | May cause irritation of respiratory tract. |
| Eye contact | Causes eye irritation. |
| Skin contact | May cause skin irritation and/or dermatitis. |
| Ingestion | Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

Toxicology data for the components

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|----------------------|--------------------|---------------------------------|
| Ammonium thiosulfate 7783-18-8 | > 2000 mg/kg (Rat) | - | - |
| Sodium thiosulfate pentahydrate 10102-17-7 | 5000 mg/kg (Rat) | - | - |
| Sodium metabisulfite 7681-57-4 | 1131 mg/kg (Rat) | 2 g/kg (Rat) | - |
| Sodium acetate 127-09-3 | 3530 mg/kg (Rat) | 10 g/kg (Rabbit) | 30 g/m ³ (Rat) 1 h |

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.
Carcinogenicity Contains no ingredient listed as a carcinogen.
Reproductive toxicity No information available.

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organ Effects Eyes, Skin, Respiratory system.
Aspiration Hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 3.5% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 6597 mg/kg
ATEmix (dermal) 61920 mg/kg
ATEmix (inhalation-dust/mist) 288.5 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

41.43% of the mixture consists of component(s) of unknown hazards to the aquatic environment

| Chemical Name | Toxicity to algae | Toxicity to fish | Toxicity to microorganisms | Toxicity to daphnia and other aquatic invertebrates |
|-----------------------------------|---|--|----------------------------|---|
| Sodium metabisulfite 7681-57-4 | 48 mg/L EC50 72 h (Desmodesmus subspicatus) 40 mg/L EC50 96 h (Desmodesmus subspicatus) | LC50= 32 mg/L Lepomis macrochirus 96 h | | EC50 = 89 mg/L 24 h (Daphnia magna Straus) |
| Sodium acetate 127-09-3 | | | | EC50 > 1000 mg/L 48 h (Daphnia magna) |

Persistence and degradability
 Expected to be readily biodegradable.

Bioaccumulation:
 Not likely to bioaccumulate.

| Chemical Name | log Pow |
|-----------------------------------|---------|
| Sodium metabisulfite 7681-57-4 | -3.7 |

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Methods Dispose of in accordance with local regulations.
Contaminated packaging Do not re-use empty containers. Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

DOT Not regulated

| | |
|------------------|---------------|
| TDG | Not regulated |
| ICAO/IATA | Not regulated |
| IMDG/IMO | Not regulated |

For transportation information, go to: <http://ship.carestreamhealth.com>.

15. REGULATORY INFORMATION

"Does not comply" indicates a component is either not on the public inventory or is subject to exemption requirements. If additional information is needed contact Carestream Health.

International Inventories

| | |
|----------------------|-----------------|
| TSCA | Does not comply |
| DSL/NDSL | Complies |
| EINECS/ELINCS | Does not comply |
| ENCS | Does not comply |
| IECSC | Complies |
| KECL | Does not comply |
| PICCS | Does not comply |
| AICS | Does not comply |
| NZIoC | Complies |

Legend

- EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- 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
- NZIoC** - New Zealand Inventory of Chemicals

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Chemical Name | SARA 313 - Threshold Values % |
|----------------------------------|-------------------------------|
| Ammonium thiosulfate - 7783-18-8 | 1.0 |

SARA 311/312 Hazard Categories

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

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

TSCA

This product does not contain any chemicals regulated under TSCA Section 4, Section 5(a), Section 8(a) or Section 8(d).

| | | |
|---|--|--|
| Chemical Name | U.S. - TSCA (Toxic Substances Control Act) - Section 8(a) - Chemical-Specific Reporting and Recordkeeping | |
| Sodium metabisulfite | PAIR: 01/26/1994 | |
| Component | U.S. - TSCA (Toxic Substances Control Act) - Section 8(d) - 716.120(a) - Health and Safety Reporting - List of Substances | |
| Sodium metabisulfite 7681-57-4 (1-5) | 01/26/1994 | |

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|----------------------|----------------------|-------------------|---------------------|-----------------|---------------------|
| Ammonium thiosulfate | X | | X | | |
| Sodium metabisulfite | X | X | X | | X |

International Regulations

Mexico - Grade

Moderate risk, Grade 2

16. OTHER INFORMATION

NFPA

Health Hazard 2

Flammability 1

Instability 0

HMIS

Health Hazard 2

Flammability 1

Physical Hazard 0

Revision Date

2013-11-20

Revision Note

(M)SDS sections updated

Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Material Safety Data Sheet