Carestream

SAFETY DATA SHEET

Issuing date 2015-08-25 **Revision Date** 2015-08-25 **Version** 1

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

Product name: INDUSTREX Manual Fixer

Product code: 5320643

Supplier Carestream Health Canada, 8800 Dufferin Street, Suite 201, Vaughan, Ontario, L4K 0C5

For Emergency Health Information call: 800-424-9300

For other information contact: 1-866-792-5011

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.

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-<3	*
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 (CO_2). 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 Soak up with inert absorbent material. Sweep up and shovel into suitable containers for 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/m³		-	

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 top and side-shields. If splashes are likely to occur, wear:: Goggles.
Skin and body protection	Wear protective gloves/clothing. Skin contact should be prevented through use of suitable protective clothing, gloves, and footwear, selected with regard of use conditions and exposure potential.
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		
Appearance	Colorless	**Odor**	Odorless
Color	colorless	**Odor Threshold**	No information available

Property	**Values**	**Remarks/ • Method**
ph	5.7	
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
Oxidizing Properties	No information available	
Explosive properties	No information available	
Other information		No information available
Softening point		
Molecular Weight		No information available
Density		No information available
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	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium thiosulfate 7783-18-8	> 2000 mg/kg (Rat)	-	-
Sodium metabisulfite 7681-57-4	1310 mg/kg (Rat) Oral LD50 Rat 1310 mg/kg (Source: JAPAN_GHS)	-	-
Sodium acetate 127-09-3	3530 mg/kg (Rat)	10 g/kg (Rabbit) Dermal LD50 Rabbit >10 g/kg (Source: NLM_CIP)	30 g/m^3 (Rat) 1 h Inhalation LC50 Rat >30 g/m^3 1 h (Source: NLM_CIP)

Information on toxicological effects

Symptoms Irritant.

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 components(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	40: 96 h Desmodesmus subspicatus mg/L EC50 48: 72 h Desmodesmus subspicatus mg/L EC50	32: 96 h Lepomis macrochirus mg/L LC50 static		
Sodium acetate 127-09-3				1000: 48 h Daphnia magna mg/L EC50

Persistence and degradability
Expected to be readily biodegradable.

Bioaccumulation:
No information available.

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

13. DISPOSAL CONSIDERATIONS

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.carestream.com

15. REGULATORY INFORMATION

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

16. OTHER INFORMATION

Revision Date	2015-08-25
Revision Note	(M)SDS sections updated

Disclaimer
The information provided on this MSDS 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