Carestream DENTAL

# SAFETY DATA SHEET

**Revision Date** 11/09/2018 **Revision Number** 2.01

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

**Product name:** READYPRO Fixer

**Product Code(s)** 8606881FIX

**Supplier** Carestream Health, Inc., 150 Verona Street, Rochester, NY, USA 14608

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

For other information contact: 800-328-2910

**Recommended Use** Restricted to professional users, Photographic chemical.

## 2. HAZARDS IDENTIFICATION

**Classification**

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

**Label elements**

**Emergency Overview**

**Signal word** **No signal word**

**Hazard statements**
None

**Appearance** aqueous solution **Physical state** Liquid **Odor** Ammonia

**Hazards not otherwise classified (HNOC)**
• Not applicable

**Other hazards which do not result in classification**

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name | CAS No. | Weight-% | Trade Secret |
|---|---|---|---|
| Water<br>7732-18-5 | 7732-18-5 | 80-90 | * |
| Ammonium thiosulfate | 7783-18-8 | 10-15 | * |

| | | | |
|---|---|---|---|
| 7783-18-8 | | | |
| Sodium bisulfite<br>7631-90-5 | 7631-90-5 | 1-3 | * |
| Sodium borate<br>1330-43-4 | 1330-43-4 | <1 | * |

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

## 4. FIRST AID MEASURES

**First Aid Measures**

**General advice** Show this safety data sheet to the doctor in attendance.

**Eye contact** IF IN EYES: Flush eyes for at least 15 minutes. If easy to do, remove contact lens, if worn.

**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** IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

**Ingestion** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get medical attention.

**Most important symptoms and effects, both acute and delayed**

**Main Symptoms** None known.

**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 chemical. Foam.

**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), Sulfur oxides.

**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** For personal protection see section 8. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Other information** Refer to protective measures listed in Sections 7 and 8.

### 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. Dike to collect large liquid spills.

**Methods for cleaning up** Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice. In case of insufficient ventilation, wear suitable respiratory equipment. Wear personal protective equipment.

### Conditions for safe storage, including any incompatibilities

**Technical measures/Storage conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**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 bisulfite 7631-90-5 | TWA: 5 mg/m³ | | - | |
| Sodium borate 1330-43-4 | STEL 6 mg/m³ TWA: 2 mg/m³ | | - | |

### Appropriate engineering controls

**Engineering Measures** Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Ensure that eyewash stations and safety showers are close to the workstation location.

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Safety glasses with top and side-shields.

**Skin and body protection** Long sleeved clothing. Protective gloves. 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** None required under normal conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. None required under normal usage.

**Hygiene measures** Remove and wash contaminated clothing before re-use. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Provide regular cleaning of equipment, work area and clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### PHYSICAL AND CHEMICAL PROPERTIES

| | | | | | |
|---|---|---|---|---|---|
| **Physical state** | Liquid | | | | |
| **Appearance** | aqueous solution | | | **Odor** | Ammonia |
| **Color** | light yellow | | | **Odor threshold** | No information available |
| **Property** | **Values** | | | **Remarks • Method** | |
| **pH** | 4.4 | | | | |
| **Melting point / freezing point** | | | | No information available | |
| **Boiling point / boiling range** | > 100 °C | / | 212 °F | | |
| **Flash point** | > 93 °C | / | 200 °F | | |
| **Evaporation rate** | | | | No information available | |
| **Flammability (solid, gas)** | no data available | | | | |
| **Upper flammability limit:** | Unknown | | | | |
| **Lower flammability limit:** | Not flammable | | | | |
| **Vapor pressure** | 24 mbar @ 20 °C | | | | |
| **Vapor density** | 0.6 | | | | |
| **Specific Gravity** | 1.09 | | | No information available | |
| **Water solubility** | completely soluble | | | | |
| **Solubility(ies)** | | | | No information available. | |
| **Partition coefficient** | | | | No information available | |
| **Autoignition temperature** | | | | No information available | |
| **Decomposition temperature** | | | | No information available | |
| **Kinematic viscosity** | | | | No information available | |
| **Dynamic viscosity** | | | | No information available | |
| **Oxidizing Properties** | No information available | | | | |
| **Explosive properties** | No information available | | | | |

### Other information

| | |
|---|---|
| **Softening point** | No information available |
| **Molecular weight** | No information available |
| **Liquid Density** | No information available |
| **Bulk density** | No information available |

## 10. STABILITY AND REACTIVITY

**Reactivity**
No dangerous reaction known under conditions of normal use.

**Chemical stability**
Stable under recommended storage conditions.

**Possibility of hazardous reactions**
None under normal processing. Contact with strong acids liberates sulfur dioxide. Contact with sodium hypochlorite (bleach) may form chloramine (toxic gas). Contact with strong bases liberates ammonia.

**Conditions to Avoid**
Do not freeze. Extreme pH's.

**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** | Expected to be a low hazard for recommended handling. May cause irritation of respiratory tract. |
| **Eye contact** | May cause slight irritation. |
| **Skin contact** | Substance may cause slight skin irritation. |
| **Ingestion** | Expected to be a low hazard for recommended handling. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

**Toxicology data for the components**

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|
| Water<br>7732-18-5 | 90,000 mg/kg ( Rat ) | - | - |
| Ammonium thiosulfate<br>7783-18-8 | > 2000 mg/kg ( Rat ) | - | - |
| Sodium bisulfite<br>7631-90-5 | 1420 mg/kg ( Rat ) | - | - |
| Sodium borate<br>1330-43-4 | 2660 mg/kg ( Rat )<br>Oral LD50 Rat 2660 mg/kg (Source: JAPAN_GHS) | 2000 mg/kg ( Rabbit )<br>Dermal LD50 Rabbit >2000 mg/kg (Source: IUCLID) | 2 mg/m³ ( Rat ) 4 h<br>Inhalation LC50 Rat >2 mg/m³ 4 h (Source: HSDB) |

**Component Information**

**Information on toxicological effects**

**Symptoms**

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Severe eye irritation or burning.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

| | |
|---|---|
| **Skin corrosion/irritation** | Substance may cause slight skin irritation. |
| **Serious eye damage/eye irritation** | May cause slight irritation. |
| **Sensitization** | May cause sensitization of susceptible persons. |
| **Mutagenic effects** | No information available. |
| **Carcinogenicity** | Contains no ingredients above reportable quantities listed as a carcinogen. |
| **Reproductive toxicity** | Contains a known or suspected reproductive toxin. However, based on available data the product should not be classified for reproductive effects. |
| **STOT - single exposure** | The substance or mixture is not classified as specific target organ toxicant, single exposure |
| **STOT - repeated exposure** | The substance or mixture is not classified as specific target organ toxicant, repeat exposure |
| **Target Organ Effects** | Eyes, Skin, Respiratory system. |
| **Aspiration Hazard** | No information available. |

**Numerical measures of toxicity - Product Information**

**The following values are calculated based on chapter 3.1 of the GHS document .**

| | |
|---|---|
| **ATEmix (oral)** | 16142 mg/kg |
| **ATEmix (dermal)** | 63095 mg/kg |
| **ATEmix (inhalation-dust/mist)** | 678.6 |

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

| Chemical name | Toxicity to algae | Toxicity to fish | Toxicity to microorganisms | Toxicity to daphnia and other aquatic invertebrates |
|---|---|---|---|---|
| Sodium bisulfite 7631-90-5 | | 240: 96 h Gambusia affinis mg/L LC50 static | | 119: 48 h Daphnia magna mg/L EC50 |
| Sodium borate 1330-43-4 | 158: 96 h Desmodesmus subspicatus mg/L EC50 2.6 - 21.8: 96 h Pseudokirchneriella subcapitata mg/L EC50 static | 340: 96 h Limanda limanda mg/L LC50 | | 1085 - 1402: 48 h Daphnia magna mg/L LC50 |

**Persistence and degradability** Expected to be readily biodegradable

**Bioaccumulation:** No information available

**Mobility in soil** No information available

**Other adverse effects** No information available

## 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.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

## 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

**IATA** Not regulated

**IMDG** Not regulated

For transportation information, go to: http://ship.carestream.com

## 15. REGULATORY INFORMATION

## International Inventories

| | |
|---|---|
| **TSCA** | Complies |
| **DSL/NDSL** | Complies |
| **EINECS/ELINCS** | Complies |
| **ENCS** | Complies |
| **IECSC** | Complies |
| **KECL** | Complies |
| **PICCS** | Complies |
| **AICS** | Complies |
| **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 contains a chemical or 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** | Yes |
| **Chronic Health Hazard** | No |
| **Fire Hazard** | No |
| **Sudden Release of Pressure Hazard** | No |
| **Reactive Hazard** | No |

### Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|---|---|---|---|
| Ammonium acetate | 5000 lb | | | X |
| Sodium bisulfite | 5000 lb | | | X |
| Aluminum sulfate | 5000 lb | | | X |
| Acetic acid | 5000 lb | | | X |

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

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:

### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

| Chemical name | Hazardous Substances RQs | Extremely Hazardous Substances RQs | SARA Product RQ |
|---|---|---|---|
| Sodium bisulfite | 5000 lb | | |

### TSCA

| Chemical name | U.S. - TSCA (Toxic Substances Control Act) - Section 8(a) - Chemical-Specific Reporting and Recordkeeping |
|---|---|
| Sodium bisulfite | 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 bisulfite<br>7631-90-5 ( 1-3 ) | 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**

| Chemical name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---|---|---|---|---|
| Ammonium thiosulfate | X | | X | | |
| Sodium bisulfite | X | X | X | | X |
| Sodium borate | X | | X | | |

## International Regulations

**Mexico - Grade** Moderate risk, Grade 2

| Chemical name | Carcinogen Status | Exposure Limits |
|---|---|---|
| Sodium borate | | Mexico: TWA 1 mg/m³ |

## 16. OTHER INFORMATION

| | | | |
|---|---|---|---|
| **NFPA** | **Health Hazard** 1 | **Flammability** 1 | **Instability** 0 |
| **HMIS** | **Health Hazard** 1 | **Flammability** 1 | **Physical Hazard** 0 |

**Issuing Date** 02/05/2014
**Revision Date** 11/09/2018
**Revision Note** Update to OSHA GHS SDS format

**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 Safety Data Sheet**