

## Material Safety Data Sheet

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### 1. Identification of the substance/mixture and of the company/undertaking

**Product name:** METOL (ELON)

**Product code:** 10072416

**Supplier:** Carestream Health, Inc., 150 Verona Street, Rochester, New York 14608; Carestream Health Canada Company, 6 Monogram Place, Suite 200, Toronto, Ontario, M9R 0A1

MSDS Prepared by: Health, Safety and Environment, Carestream Health, Inc., Rochester, New York, 14608.

For Emergency Health Information call: 1-800-424-9300.

For Other Information, call the Marketing and Distribution Center in Your Area.

**Synonyms:** PCD 14020

**Product Use:** photographic processing chemical

### 2. Hazards identification

**CONTAINS:** Bis(4-hydroxy-N-methylanilinium) sulphate (55-55-0)

**WARNING!**

**MAY CAUSE BLOOD DISORDERS BASED ON ANIMAL DATA**

**MAY CAUSE CYANOSIS BASED ON ANIMAL DATA**

**HARMFUL IF INHALED OR SWALLOWED**

**MIST OR DUST IRRITATING TO THE EYES AND RESPIRATORY TRACT**

**CAUSES SKIN AND EYE IRRITATION**

**MAY CAUSE ALLERGIC SKIN REACTION**

**POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES**

**HMIS II Hazard Ratings:**

Health - 2\*, Flammability - 1, Reactivity (Stability) - 0

**NFPA Hazard Ratings:**

Health - 2, Flammability - 1, Instability - 0

NOTE: HMIS II and NFPA hazard indexes involve data review and interpretation that may vary among companies. They are intended only for rapid, general identification of the magnitude of the potential hazards. An asterisk (\*), in the HMIS II health field, designates potential chronic or target organ hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

### 3. Composition/information on ingredients

Weight %	Components (CAS-No.)
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Bis(4-hydroxy-N-methylanilinium) sulphate (55-55-0)

### 4. First aid measures

**Inhalation:** Move to fresh air. Treat symptomatically. Get medical attention.

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before re-use. Destroy or thoroughly clean contaminated shoes.

**Ingestion:** Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

#### Notes to physician:

**Treatment:** Absorption of this material into the body leads to the formation of methemoglobin that, in sufficient concentration, causes cyanosis. Since reversion of methemoglobin to hemoglobin occurs spontaneously after termination of exposure, moderate degrees of cyanosis need to be treated only by supportive measures such as bed rest and oxygen inhalation. Thorough cleansing of the entire contaminated area of the body, including scalp and nails, is of utmost importance. If cyanosis is severe, intravenous injection of methylene blue, one milligram per kilogram of body weight, may be of value.

### 5. Fire-fighting measures

**Extinguishing Media:** water spray, carbon dioxide (CO<sub>2</sub>), dry chemical.

**Special Fire-Fighting Procedures:** Wear self-contained breathing apparatus and protective clothing.

**Hazardous Combustion Products:** Carbon oxides, nitrogen oxides (NO<sub>x</sub>), sulfur oxides

**Unusual Fire and Explosion Hazards:** Dust may form explosive mixture in air.

### 6. Accidental release measures

**Methods for cleaning up:** Shovel into suitable container for disposal. Avoid dust formation. Clean surface thoroughly to remove residual contamination.

### 7. Handling and storage

**Personal precautions:** Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation. Wash thoroughly after handling.

**Prevention of Fire and Explosion:** Dust may form explosive mixture in air. Minimize dust generation and accumulation. Ensure adequate ventilation. Keep away from sources of ignition - No smoking. Refer to NFPA Pamphlet No. 654, "Prevention of Fire and Dust Explosions in the

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Chemical, Dye, Pharmaceutical, and Plastics Industries." Keep from contact with oxidizing materials.

**Storage:** Keep container tightly closed. Keep away from incompatible substances (see Incompatibility section.)

### 8. Exposure controls / personal protection

**Occupational exposure controls:** Not established

**Ventilation:** Good general ventilation should be used. Ventilation should be sufficient so that applicable occupational exposure limits are not exceeded. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances.

**Respiratory protection:** If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Respirator type: N95 Particulate Filter.

**Eye protection:** Wear safety glasses with side shields (or goggles).

**Skin and body protection:** Wear impervious gloves and protective clothing appropriate for the risk of exposure.

**Recommended Decontamination Facilities:** Safety shower, eye wash, washing facilities as appropriate to condition of use.

### 9. Physical and Chemical Properties

**Physical form:** solid

**Colour:** white

**Odour:** odourless

**Specific gravity:** No data available

**Vapour pressure:** negligible

**Vapor density (air = 1):** not applicable

**Volatile fraction by weight:** negligible

**Melting point/range:** 271.0 °C (519.8 °F) (Melts with Decomposition)

**Water solubility:** Moderate

**pH:** not applicable

**Flash point:** not applicable, combustible solid

### 10. Stability and reactivity

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**Stability:** Stable

**Incompatibility:** Strong oxidizing agents.

**Hazardous decomposition products:** None under normal conditions of use.

**Hazardous Polymerization:** Hazardous polymerization does not occur.

### 11. Toxicological information

#### Effects of Exposure

**General advice:** Based on animal data, may cause adverse effects on the following organs/systems: blood, kidney, spleen. Based on animal data this material can produce methemoglobin which, in sufficient concentration, causes cyanosis, a blue-gray discoloration of the skin and lips caused by a reduced ability of the blood to carry oxygen.

**Inhalation:** Harmful if inhaled. Airborne dust irritating.

**Eyes:** Causes eye irritation. Airborne dust irritating.

**Skin:** Causes skin irritation. May cause allergic skin reaction.

**Ingestion:** Harmful if swallowed.

#### Acute Toxicity Data:

- Oral LD50 (rat): 237 mg/kg
- Oral LD50 (mouse): 565 mg/kg
- Inhalation LC50: / (No data available)
- Dermal : > 1,000 mg/kg (highest dose tested)
- Skin irritation: slight
- Skin irritation: slight to moderate (repeated skin application)
- Skin Sensitization: none
- Eye irritation (unwashed eyes): moderate to strong
- Eye irritation (washed eyes): slight

Definitions for the following section(s): LOEL =lowest-observed-effect level, LOAEL = lowest-observed-adverse-effect, NOAEL = no observed-adverse-effect level, NOEL =no-observed-effect level.

#### Repeated dose toxicity:

- Oral (11 days, ): LOEL; 1.0 % in diet ((reduced feed intake), (reduced body weight gain), target organ effects: red blood cell)
- Oral (11 days, ): NOEL; 0.1 % in diet

### 12. Ecological information

The following properties are ESTIMATED from the components of the preparations.

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### Potential Toxicity:

Fish LC50:	< 1 mg/l
Daphnid EC50:	< 1 mg/l
Algal IC50:	10 - 100 mg/l
Waste treatment organisms EC50:	10 - 100 mg/l
Organics Readily Degradable:	Readily biodegradable
Potential Bioaccumulation:	log Pow 0.04
COD (approximate):	1.26 g/g
BOD (approximate):	0.75 g/g

After dilution with a large amount of water, followed by secondary waste treatment, this material is not expected to cause adverse environmental effects.

### 13. Disposal considerations

Discharge, treatment, or disposal may be subject to federal, state, commonwealth, provincial, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

Not regulated for all modes of transportation.

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

### 15. Regulatory information

**WHMIS (Canada):** D1B, D2B

**WHMIS Symbol(s):**



**U.S. California Prop. 65:** none

**Carcinogenicity Classification (components present at 0.1% or more):**

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International Agency for Research on Cancer (IARC): none  
American Conference of Governmental Industrial Hygienists (ACGIH): none  
U.S. National Toxicology Program (NTP): none  
U.S. Occupational Safety and Health Administration (OSHA): none

**Chemical(s) subject to the reporting requirements of U.S. Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372:**  
none

### 16. Other information

#### US/Canadian Label Statements:

**CONTAINS: Bis(4-hydroxy-N-methylanilinium) sulphate (55-55-0)**

**WARNING!**

**MAY CAUSE BLOOD DISORDERS BASED ON ANIMAL DATA**

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**MAY CAUSE ALLERGIC SKIN REACTION**

**POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES**

Minimize dust generation and accumulation.

Avoid breathing dust.

Avoid contact with eyes, skin, and clothing.

Ensure adequate ventilation.

Wash thoroughly after handling.

**FIRST AID:** If swallowed, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. If inhaled, move to fresh air. Treat symptomatically. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. In case of skin contact, immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before re-use. Destroy or thoroughly clean contaminated shoes.

**Notes to physician:** Absorption of this material into the body leads to the formation of methemoglobin that, in sufficient concentration, causes cyanosis. Since reversion of methemoglobin to hemoglobin occurs spontaneously after termination of exposure, moderate degrees of cyanosis need to be treated only by supportive measures such as bed rest and oxygen inhalation. Thorough cleansing of the entire contaminated area of the body, including scalp and nails, is of utmost importance. If cyanosis is severe, intravenous injection of methylene blue, one milligram per kilogram of body weight, may be of value.

Keep out of reach of children.

For additional information, see Material Safety Data Sheet (MSDS) for this material.

Additional hazard precautions for containers greater than 1 gallon of liquid or 5 pounds of solid:

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Since emptied containers retain product residue, follow label warnings even after container is emptied.

**IN CASE OF FIRE:** Use water spray, carbon dioxide (CO<sub>2</sub>), dry chemical.

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The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.

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R-2, S-2, F-1, C-0