

**MATERIAL SAFETY  
DATA SHEET**

Material Name  
Clothing Stain Remover

Page : 1  
Issue Date: 12/28/1995  
MSDS No.: PF-001

**Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Chemical Name:** Mixture  
**Internal Part No.:** 05-0100  
**Product Use:** Remove chemical stains caused by photographic developers and fixers

**Manufacturer Information**  
Photographers' Formulary Inc.  
P.O. Box 950  
Condon, Montana 59826  
---PHONE #: (406) 754-2891  
EMERGENCY #: (406) 754-2891  
Mfg. Part #

**Supplier Information**

Sup. Part #

**Synonyms:** None

**Section 2 - COMPOSITION / INFORMATION ON INGREDIENTS**

CAS #	Components	% Wt.
62-56-6	Thiourea	<10
77-92-9	Citric Acid	<10
7732-18-5	Water	80-85

**Component Information/Information on Non-Hazardous Components**

This product has been evaluated under the criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

**Section 3 - HAZARDS IDENTIFICATION**

**Emergency Overview**

This product is a colorless liquid. Contact with eyes and skin may produce irritation. May be harmful if swallowed.

**Label Information**

WARNING - Harmful or fatal if swallowed. May cause skin or eye irritation. Keep away from children. Contains thiourea, citric acid.

**Potential Health Effects**

**Eyes**

This product may cause irritation to the eyes.

**Skin**

This product may cause irritation to the skin. This product may cause sensitization by skin contact. This product contains thiourea which is considered a suspect human carcinogen.

**Ingestion**

This product may be harmful if it is swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. More serious effects may be seen if a large amount is ingested. This product contains thiourea which is considered a suspect human carcinogen.

Continued on next page...

**MATERIAL SAFETY  
DATA SHEET**

Material Name  
Clothing Stain Remover

Page : 2  
Issue Date: 12/28/1995  
MSDS No.: PF-001

**Inhalation**

This product may cause irritation to the respiratory system. This product contains thiourea which is considered a suspect human carcinogen.

**Section 4 - FIRST AID MEASURES**

**Eyes**

In case of contact with eyes, flush immediately with large amounts of water. Seek medical attention if irritation develops.

**Skin**

In case of skin contact, immediately flush with large amounts of water. Seek medical attention if irritation develops.

**Ingestion**

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.

**Inhalation**

If mist or fumes are inhaled, remove affected person to fresh air. Seek medical attention if symptoms develop.

**Notes to Physician**

Provide general supportive measures and treat symptomatically.

**Section 5 - FIRE FIGHTING MEASURES**

Flash Point : Not Available  
Method Used : Not Available  
Upper Flammable Limit (UFL): Not Available  
Lower Flammable Limit (LFL): Not Available  
Auto Ignition : Not Available  
Flammability Classification: Not Available  
Rate of Burning : Slow

**General Fire Hazards**

This product is an aqueous mixture which will not burn. If evaporated to dryness, the solid residue may pose a moderate fire hazard.

**Hazardous Combustion Products**

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Decomposition of this product may yield oxides of sulfur and nitrogen.

**Extinguishing Media**

Dry chemical, foam, carbon dioxide, water fog.

**Fire Fighting Equipment/Instructions**

Firefighters should wear full protective clothing including self-contained breathing apparatus.

-----  
NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0 Other:  
-----

HMIS Ratings: Health: 1 Fire: 0 Reactivity: 0  
Personal Protection:

**Section 6 - ACCIDENTAL RELEASE MEASURES**

**Containment Procedures**

Contain the discharged material.

Continued on next page...

**MATERIAL SAFETY  
DATA SHEET**

---

**Material Name**  
Clothing Stain Remover

**Page : 3**  
**Issue Date: 12/28/1995**  
**MSDS No.: PF-001**

**Clean-Up Procedures**

Use an inert, nonflammable absorbent material to absorb spilled material. Wear appropriate protective equipment and clothing during clean-up. Thoroughly wash the area with water after a spill or leak clean-up.

**Evacuation Procedures**

Keep unnecessary personnel away from spill.

**Special Instructions**

Avoid skin contact with the spilled material. Remove soiled clothing and launder before reuse.

<b>Section 7 - HANDLING AND STORAGE</b>
---

**Procedures for Handling**

Avoid getting this material into contact with your skin and eyes. Wash thoroughly after handling. Avoid breathing vapors or mists of this product.

**Recommended Storage Methods**

Keep the container tightly closed. When using this material, do not eat, drink or smoke.

<b>Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION</b>
--

**Exposure Guidelines**

**A. General Product Information**

Because this product contains a chemical considered to be a suspect human carcinogen, attempts should be made to avoid or minimize all unnecessary exposures.

**B. Component Exposure Limits**

No ACGIH, NIOSH or OSHA exposure guidelines listed for this product's components.

**Engineering Ctrl.:** Ventilation should be sufficient to effectively remove and prevent accumulation of any mists or vapors generated during handling of this material.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face:** Wear safety glasses; chemical goggles (if splashing is possible).

**Skin:** Use impervious gloves. Use of protective coveralls and long sleeves is recommended.

**Respiratory:** If ventilation is not sufficient to remove mists or vapors, appropriate NIOSH/MSHA approved respiratory protection must be provided.

**General:** Use good industrial hygiene practices in handling this material.

<b>Section 9 - PHYSICAL &amp; CHEMICAL PROPERTIES</b>
---

<b>Appearance</b>	: Clear, colorless liquid	<b>Odor</b>	: Odorless
<b>Physical State</b>	: Liquid	<b>pH</b>	: Not available
<b>Vapor Pressure</b>	: Not available	<b>Vapor Density</b>	: Not available
<b>Boiling Point</b>	: Not available	<b>Freezing Point</b>	: Not available

Continued on next page...

**MATERIAL SAFETY  
DATA SHEET**

Material Name  
Clothing Stain Remover

Page : 4  
Issue Date: 12/28/1995  
MSDS No.: PF-001

Melting Point : Not available	Solubility (H2O): Soluble
Specific Gravity: Not available	Particle Size : Not applicable
Softening Point : Not applicable	Evaporation Rate: Not available
Viscosity : Not available	Bulk Density : Not available
Percent Volatile: Not available	Molecular Weight: Mixture

Additional Properties  
None available.

**Section 10 - CHEMICAL STABILITY & REACTIVITY INFORMATION**

**Chemical Stability:** Stable  
**Conditions to Avoid:** Thiourea, even in small amounts, when in contact with acrolein may cause polymerization of acrolein, which is a highly exothermic reaction.

**Incompatibility**

This product may react with strong acids.

**Hazardous Decomposition Products**

Decomposition products may include oxides of sulfur and nitrogen, as well as carbon monoxide, carbon dioxide and other hydrocarbons.

**Hazardous Polymerization**

Hazardous polymerization will not occur.

**Section 11 - TOXICOLOGICAL INFORMATION**

**Acute Toxicity/Target Organ Information**

**A. General Product/Component Information**

No data available for this product. Long term exposures to thiourea may cause allergic rashes, thyroid dysfunction, and also bone marrow depression.

**B. Component LD50/LC50**

Thiourea (62-56-6)  
Oral, rat: LD50 = 125 mg/kg

Citric Acid (77-92-9)  
Oral, rat: LD50 = 6730 mg/kg

**Epidemiology**

No data available for this product.

**Carcinogenicity**

**A. General Product/Component Information**

Oral administration of thiourea has caused tumors in the liver and thyroid of rats.

**B. Component Carcinogenicity Listings**

Thiourea (62-56-6)  
OSHA: Possible Select Carcinogen  
NTP: Suspect Carcinogen  
IARC: Group 2B - Possibly carcinogenic to humans.

**Teratogenicity/Reproductive Effects**

No data available for this product. Thiourea was shown to be teratogenic in rats when administered as a 0.2% solution in drinking water.

**Neurotoxicity**

No data available for this product.

Continued on next page...

**MATERIAL SAFETY  
DATA SHEET**

**Material Name**  
Clothing Stain Remover

Page : 5  
Issue Date: 12/28/1995  
MSDS No.: PF-001

**Mutagenicity**

No data available for this product.

**Other Information**

No data available for this product.

**Section 12 - ECOLOGICAL INFORMATION**

**Ecotoxicity**

No data available for this product. Thiourea is not expected to bioconcentrate in aquatic organisms.

**Environmental Fate**

No data available for this product. Thiourea is expected to be highly mobile in soil and therefore susceptible to significant leaching. In aquatic systems, thiourea appears to be generally resistant to typical biodegradation processes.

**Section 13 - DISPOSAL CONSIDERATIONS**

**US EPA Waste Number & Descriptions**

**A. General Product Information**

If product meets the EPA definition of waste, it is defined as a Toxic Waste under 40 CFR 261.33(f).

**B. Component Waste Numbers**

Thiourea (62-56-6) is listed as a U219 hazardous waste.

**Disposal Instructions**

All wastes must be handled in accordance with local, state and federal regulations. Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

**Section 14 - TRANSPORTATION INFORMATION**

**DOT Information**

**Shipping Name:** Consumer Commodity

**Hazard Class:** ORM-D

**UN/NA #:** none

**Packing Group:** none

**Label(s) Required**

none

**Additional Shipping Information**

Packages not meeting the U.S. DOT definition of "Consumer Commodity" must be sent as "Environmentally hazardous substance, liquid, n.o.s., 9, UN3082, PGIII" if they contain more than 10 pounds of thiourea.

**International Transportation Regulations**

Not determined.

**Section 15 - REGULATORY INFORMATION**

**US Federal Regulations**

**A. General Product Information**

No additional information.

**B. Component Information**

Continued on next page...

**MATERIAL SAFETY  
DATA SHEET**

**Material Name**  
Clothing Stain Remover

Page : 6  
Issue Date: 12/28/1995  
MSDS No.: PF-001

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4):

Thiourea (62-56-6, <10%)

SARA 313: form R reporting required for 0.1% de minimus concentration  
CERCLA : final RQ = 10 pounds (4.54 kg)

**State Regulations**

**A. General Product Information**

No additional information.

**B. Component Information**

The following components appear on one or more of the following state hazardous substance lists:

Component	Cas #	CA	FL	MA	MN	NJ	PA
Thiourea	62-56-6	Y	Y	Y	Y	Y	Y

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

**Other Regulations**

**A. General Product Information**

No additional information.

**B. Component Information**

CANADA

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	%	Minimum Concentration
Thiourea	62-56-6	<10	0.1% item 1565 (1619)
Citric Acid	77-92-9	<10	1% item 409 (80)

**Section 16 - OTHER INFORMATION**

**Other Information**

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any

Continued on next page...

**MATERIAL SAFETY  
DATA SHEET**

---

**Material Name**  
Clothing Stain Remover

Page : 7  
Issue Date: 12/28/1995  
MSDS No.: PF-001

---

direct, incidental or consequential damages resulting from its use.

**Key/Legend**

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration

**Contact Person:** Bud Wilson

**Phone:** (406) 754-2891

End of MSDS #PF-001

Print Date: 12/29/1995

