

MATERIAL SAFETY DATA SHEET

AGFA CORPORATION
100 Challenger Road
Ridgefield Park, NJ 07660

TRANSPORTATION EMERGENCY
CALL CHEMTREC: 800-424-9300
INTERNATIONAL: 703-527-3887
NON-TRANSPORTATION
HEALTH EMERGENCY PHONE..: (303) 623-5716
AGFA INFORMATION PHONE..: (201) 440-2500

1. CHEMICAL PRODUCT IDENTIFICATION:

PRODUCT NAME.....: HD Fixer Working Strength
PRODUCT CODE.....: LH1G7000; LH1F5000; LH1HA000
CHEMICAL FAMILY....: Aqueous Photochemical Solution
AGFA MSDS NUMBER....: 671tws.000

2. COMPOSITION/INFORMATION ON INGREDIENTS:

INGREDIENT NAME /CAS NUMBER	EXPOSURE LIMITS	CONCENTRATION (%)
--------------------------------	-----------------	-------------------

***** HAZARDOUS INGREDIENTS *****

Ammonium Thiosulfate		
7783-18-8	OSHA PEL : Not Established ACGIH TLV: Not Established	10-15 %

3. HAZARDS IDENTIFICATION:

This product as a whole has not been tested. This hazard information is for the individual ingredients.

* EMERGENCY OVERVIEW *
* *
* CAUTION! Color: Colorless; Form: Liquid; Clear; Odor: *
* Slight sulfur dioxide; May cause eye, skin, and respiratory *
* tract irritation; Irritating gases/fumes may be given off *
* during burning or thermal decomposition. *

POTENTIAL HEALTH EFFECTS:

ROUTE(S) OF ENTRY.....: Eye Contact; Skin Contact; Inhalation;
Ingestion

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:

ACUTE INHALATION.....: Inhalation of ammonium thiosulfate may be irritating to the respiratory tract with symptoms of sore throat, coughing, and runny nose.

ACUTE SKIN CONTACT.....: Ammonium thiosulfate may be irritating to the skin with symptoms of reddening and itching.

ACUTE EYE CONTACT.....: Ammonium thiosulfate may be irritating to the eyes with symptoms of reddening, tearing, and stinging.

ACUTE INGESTION.....: Ingestion of ammonium thiosulfate may cause gastrointestinal irritation.

CHRONIC EFFECTS OF EXPOSURE...: No applicable information was found concerning any adverse chronic health effects from overexposure to this product.

CARCINOGENICITY.....: The components of this product are not listed by NTP, IARC or regulated as a carcinogen by OSHA.

MEDICAL CONDITIONS

AGGRAVATED BY EXPOSURE.....: Persons with preexisting eye, skin or respiratory tract disorders may be more susceptible to the effects of this product.

4. FIRST AID MEASURES:

FIRST AID FOR EYES.....: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

FIRST AID FOR SKIN.....: Flush affected areas promptly with water and soap for 15 minutes. Remove contaminated clothing. In case of continued irritation consult physician

FIRST AID FOR INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

FIRST AID FOR INGESTION.: If swallowed, rinse mouth with plenty of water, call a physician.

5. FIRE FIGHTING MEASURES:

FLASH POINT.....: Noncombustible

EXTINGUISHING MEDIA.....: Material is not combustible. Use extinguishing media suitable for other combustible materials in the area.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus.

UNUSUAL FIRE / EXPLOSION HAZARDS: When heated to decomposition emission of toxic fumes of SO₂ is possible.

6. ACCIDENTAL RELEASE MEASURES:

SPILL OR LEAK PROCEDURES.....: Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. Dike Spill. Prevent liquid from entering sewers, waterways or low areas. Soak up with sawdust, sand, oil dry or other absorbent material.

7. HANDLING AND STORAGE:

STORAGE TEMPERATURE(MIN/MAX): Store between 40 F (4.4 C) and 80 F (26 C). Preferred storage is at 68 F (20 C).

SHELF LIFE.....: N.A.

SPECIAL SENSITIVITY.....: Keep from freezing.

HANDLING/STORAGE PRECAUTIONS: Avoid eye and skin contact, and store in well-ventilated area. Keep container tightly closed. Do not store with incompatible materials. Do not store or consume food, drink or tobacco in area where they may become contaminated with this material.

OTHER NOTES.....: Keep out of the reach of children. For disposal see section 13.

8. PERSONAL PROTECTION:

PROTECTIVE CLOTHING REQUIREMENTS...: Splash protection required for eyes, e.g., eye glasses with side shields or goggles. For skin protection use chemical resistant gloves and aprons, e.g. made of neoprene, rubber, vinyl.

VENTILATION REQUIREMENTS.....: Use sufficient general room ventilation and/or local exhaust to maintain airborne levels of vapors below applicable exposure limits (see Section 2).

RESPIRATOR REQUIREMENTS.....: Under normal conditions of use, respirator protection is not required. If respirators are used, institute a program in accordance with OSHA standard 29CFR1010.134.

ADDITIONAL PROTECTIVE MEASURES.....: Emergency showers and eye wash stations should be made available. Educate and train employees in the safe use and handling of this product.

9. PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL FORM.....: Liquid
APPEARANCE.....: Clear
COLOR.....: Colorless
ODOR.....: Slight sulfur dioxide
pH: Approx. 4.3
BOILING POINT.....: Approx. 212 F (100 C)
MELTING/FREEZING POINT....: Not Established
SOLUBILITY IN WATER: Soluble
SPECIFIC GRAVITY: Approx. 1.09
BULK DENSITY.....: Not Established
% VOLATILE BY WEIGHT.....: Not Established
EVAPORATION RATE: Not Established (Butyl acetate = 1)
VAPOR PRESSURE: Not Established
VAPOR DENSITY: Not Established (Air = 1)

10. STABILITY AND REACTIVITY:

STABILITY.....: This is a stable material.
HAZARDOUS POLYMERIZATION...: Will not occur.
INCOMPATIBILITIES.....: Strong alkali, strong acids
INSTABILITY CONDITIONS.....: None Known
DECOMPOSITION PRODUCTS.....: Oxides of sulfur, CO2, carbon monoxide, ammonia

11. TOXICOLOGICAL INFORMATION:

NO ANIMAL TOXICITY INFORMATION AVAILABLE

12. ECOLOGICAL INFORMATION:

NO ECOLOGICAL INFORMATION AVAILABLE

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD.....: Recover nonusable free liquid and/or contaminated water, and dispose of in an approved and permitted treatment system. Remove nonusable solid material and/or contaminated soil, for disposal in an approved and permitted landfill. Discharge to sewer may require approval of permitting authority and may require pretreatment.

14. TRANSPORTATION INFORMATION:

TECHNICAL SHIPPING NAME.....: Not Applicable
PRODUCT LABEL.....: HD Fixer Working Strength

DOT (DOMESTIC SURFACE)

HAZARD CLASS OR DIVISION: Non-Regulated

IMO / IMDG CODE (OCEAN)

HAZARD CLASS DIVISION NUMBER...: Non-Regulated

ICAO / IATA (AIR)

HAZARD CLASS DIVISION NUMBER...: Non-Regulated

15. REGULATORY INFORMATION:

OSHA STATUS.....: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA STATUS.....: On TSCA Inventory

CERCLA REPORTABLE QUANTITY..: None

SARA TITLE III:

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES...: None

SECTION 311/312 HAZARD CATEGORIES.....: Immediate Health Hazard

SECTION 313 TOXIC CHEMICALS.....: None

RCRA STATUS.....: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

COMPONENT NAME /CAS NUMBER	CONCENTRATION	STATE CODE
Ammonium Thiosulfate 7783-18-8	10-15 %	PA1, PA4, MA, NJ1
Water 7732-18-5	85-90 %	PA3, NJ4

MA = Massachusetts Hazardous Substance List
 NJ1 = New Jersey Hazardous Substance List
 NJ4 = New Jersey Other - included in 5 predominant ingredients > 1%
 PA1 = Pennsylvania Hazardous Substance List
 PA3 = Pennsylvania Non-hazardous present at 3% or greater.
 PA4 = Pennsylvania Environmental Hazardous Substance List.

16. OTHER INFORMATION:

HMIS RATINGS: Health Flammability Reactivity Personal Prot
 1 0 0 B
 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe
 B=Safety Glasses, Gloves

AGFA's method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS ratings are provided by AGFA as a customer service.

REASON FOR ISSUE.....: New Product
 PREPARED BY.....: R. Ruppel-Kerr
 APPROVED BY.....: H. W. Gventer
 APPROVAL DATE.....: 06/07/2000
 SUPERSEDES DATE.....: None
 MSDS NUMBER.....: 39873

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of AGFA Corporation. The data on this sheet relates only to the specific material designated herein. AGFA Corporation assumes no legal responsibility for use or reliance upon these data.