

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:

ACUTE INHALATION.....: Overexposure to acetic acid vapors, citric acid and aluminum sulfate can cause irritation to the respiratory tract resulting in coughing, runny nose and sore throat. Overexposure to citric acid may produce central nervous system depression with symptoms of headache, dizziness, confusion or coma.

ACUTE SKIN CONTACT.....: Direct contact with acetic acid and aluminum sulfate can cause skin irritation, possibly severe, with symptoms of burning, reddening, itching, and swelling. Skin sensitization with acetic acid is rare, but has been reported. Contact with citric acid can cause irritation resulting in reddening, drying and itching.

ACUTE EYE CONTACT.....: Overexposure to acetic acid can cause severe irritation resulting in burning, stinging, reddening, tearing, swelling and possible injury to the cornea depending on the concentration of the acid. Aluminum sulfate may cause irritation and possible corneal burns due. Citric acid is severely irritating to the eyes resulting in reddening, swelling of the eye and surrounding tissue, and burning.

ACUTE INGESTION.....: Swallowing concentrated acetic acid may cause severe injury. Ingestion of aluminum sulfate may cause irritation or burn the digestive tract.

CHRONIC EFFECTS OF EXPOSURE...: Not Noted

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.: Drink 1-2 glasses of water. Never give anything by mouth to An unconscious person. Seek medical attention. Take this MSDS to 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. For disposal see section 13.

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. For incompatibles see section 10.
OTHER NOTES.....: Keep out of the reach of children.

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 or 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.....: Strong vinegar
pH: 1.4
BOILING POINT.....: Approx. 221 F
MELTING/FREEZING POINT....: Not Established
SOLUBILITY IN WATER: Soluble
SPECIFIC GRAVITY: 1.129
BULK DENSITY.....: Not Applicable
% VOLATILE BY WEIGHT.....: 0.47 - 0.94
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, oxidizers
INSTABILITY CONDITIONS.....: None Known
DECOMPOSITION PRODUCTS.....: CO, CO2, oxides of sulfur and other potentially toxic fumes.

11. TOXICOLOGICAL INFORMATION:

TOXICITY DATA FOR: Acetic Acid
ACUTE TOXICITY
ORAL LD50.....: 3310 mg/kg (rat)
DERMAL LD50.....: 1060 mg/kg (rabbit) (1)
INHALATION LC50.....: LC50: 5620 ppm/1 hr. (mouse) (2)
EYE EFFECTS.....: Corrosive
SKIN EFFECTS.....: Corrosive

1 Supplier Material Safety Data Sheet
2 Occupational Health Services Material Safety Data Sheet

TOXICITY DATA FOR: Aluminum Sulfate

MUTAGENICITY.....: Positive mutagenicity studies in bacterial and mammalian cell assay systems.(1)

1 Registry of Toxic Effects of Chemical Substances (RTECS)

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.....: Aqueous Acid Solution containing Acetic Acid and Aluminum Sulfate

PRODUCT LABEL.....: HD Fixer Part B

DOT (DOMESTIC SURFACE)

PROPER SHIPPING NAME.....: Corrosive Liquid, N.O.S.
HAZARD CLASS OR DIVISION: 8
UN/NA NUMBER.....: UN1760
PACKING GROUP: II
DOT PRODUCT RQ lbs (kgs).....: None
HAZARD LABEL(s).....: Corrosive
HAZARD PLACARD(s).....: Corrosive

Limited Quantity Exception may apply to this product, for "inner packagings not over 1.0 L (0.3 gal) for liquids and 1.0 kg (2.2 lb) for solids". 173.154(b)(1). Each package must conform to the packaging requirements of Subpart B of Part 173 and may not exceed 30 kg (66 lb) gross weight. For further information consult the 49 CFR.

IMO / IMDG CODE (OCEAN)

PROPER SHIPPING NAME.....: Corrosive Liquid, N.O.S.
HAZARD CLASS DIVISION NUMBER...: 8
UN NUMBER.....: UN1760
PACKAGING GROUP.....: II
HAZARD LABEL(s).....: Corrosive
HAZARD PLACARD(s).....: Corrosive

ICAO / IATA (AIR)

PROPER SHIPPING NAME.....: Corrosive Liquid, N.O.S.
HAZARD CLASS DIVISION NUMBER...: 8
UN NUMBER.....: UN1760
SUBSIDIARY RISK.....: None
PACKING GROUP.....: II
HAZARD LABEL(s).....: Corrosive
RADIOACTIVE?.....: Non-Radioactive
PASSENGER AIR - MAX. QTY.: 1 L
PASSENGER PACKING INSTRUCTION..: 808
CARGO AIR - MAX. QTY.: 30 L
CARGO AIR PACKING INSTRUCTION..: 812

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..: Acetic Acid (CAS# 64-19-7) - 5,000 lbs.; Aluminum Sulfate (CAS# 10043-01-3) - 5,000 lbs.

SARA TITLE III:

SECTION 302 EXTREMELY

HAZARDOUS SUBSTANCES...: None

SECTION 311/312

HAZARD CATEGORIES.....: Immediate Health Hazard; Delayed Health Hazard

SECTION 313

TOXIC CHEMICALS.....: None

RCRA STATUS.....: When discarded in its purchased form, this product meets the criteria of corrosivity, and should be managed as a hazardous waste (EPA Hazardous Waste Number D002). (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
Aluminum Sulfate 10043-01-3	5-10 %	PA1, PA4, MA, NJ1
Acetic Acid 64-19-7	5-10 %	PA1, PA4, MA, NJ1, NJ3
Citric acid 77-92-9	1-5 %	PA3, NJ4
Water 7732-18-5	75-80 %	PA3, NJ4

- MA = Massachusetts Hazardous Substance List
- NJ1 = New Jersey Hazardous Substance List
- NJ3 = New Jersey Special Health 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

 2 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.....: Comp. change - revised section 3 and 15.

PREPARED BY.....: Shannon Simpson

APPROVED BY.....: Mike Patrick

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