

MATERIAL SAFETY DATA SHEET

IDENTITY

(As Used on Label and List)

E Z 40 SOLDER FLUX (CAT. # 50015)

SECTION I – Manufacturer/Product Identification:

Manufacturer's (Distributor's) Name:

Creative Craftsmen Co., Inc.
27625 Diehl Road
Warrenville, Illinois 60555-3838

Emergency Telephone Number:

888- 215-4878

Information Telephone Number:

630-836-1353 Toll Free: 800-323-5668

Trade Name: E Z 40 SOLDER FLUX

Product Type: Solder Flux

Chemical Family: Not Applicable

Date Prepared: 04/01/11

Revision: New

Prepared By: Satterfield Consulting

SECTION II – Hazardous Ingredients Information:

The information contained herein is believed to be correct and reliable. However, no warranty is expressed or implied regarding the accuracy of this data, and none is made as to the marketability of the material or its fitness for any purpose. The consumer accepts the responsibility of and the conditions for liability of use of the product.

This product contains material that may be hazardous when airborne as a particulate.

HAZARDOUS COMPONENTS^a:

(Specific Chemical Identity;

Common Name)

	CAS Number	SARA ^b	OSHA PEL ^c (mg/m ³) ^d	ACGIH TLV ^e (mg/m ³)	NOTES	PERCENT ^f
Ammonium Chloride	12125-02-9	*	—	10 (20 ^g)	STEL ^g	—
Glycerin	56-81-5		5 15	10	Respirable Dust Total Dust/Mist	—
Water	7732-18-5		—	—	—	60.0

Notes:

- The term "Hazardous" is defined in the OSHA Hazard Communication Standard (29 CFR 1910.1200) and does not necessarily imply the existence of any hazard. All components at concentrations equal to or greater than 1.0 percent (0.1 percent if a carcinogen) are listed in this section, according to OSHA 29 CFR 1910.1200.
- An asterisk (*) indicates a toxic chemical subject to the EPA's reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (SARA) and 40 CFR Part 372.
- These permissible exposure limits (PELs) are based on OSHA's rulemaking (29 CFR 1910 Subpart Z) adopted on May 29, 1971, and are the current regulatory limits, unless otherwise noted. Consult the OSHA regulations for particulate (29 CFR 1910.1000) for additional requirements.
- These values are reported as milligrams of contaminant per cubic meter of air (mg/m³).
- These values are based on the American Conference of Governmental Industrial Hygienists (ACGIH) 2010 TLVs.
- Approximate percent by weight values. The amount of each ingredient in this product is confidential and deemed proprietary. Contact the manufacturer for additional information.
- STEL = Short-Term Exposure Limit = 20 mg/m³

HAZARDOUS COMPONENTS EMERGENCY OVERVIEW:

Breathing mist and vapors can cause respiratory tract irritation.

Contact with eyes can cause irritation.

Contact with skin can cause irritation.

Material can be absorbed through the skin.

Glycerin can damage the kidneys.

SECTION III – Physical/Chemical Characteristics:

BOILING POINT:	ND	VAPOR DENSITY (Air = 1)	NA
MELTING POINT:	ND	VAPOR PRESSURE (mm Hg):	NA
SPECIFIC GRAVITY:	1.05 (H ₂ O = 1)	EVAPORATION RATE	
Bulk Density:	8.76 lbs/gal (Water = 8.34)	(Butyl Acetate = 1):	NA
pH:	NA		
APPEARANCE AND ODOR:	Clear liquid. Slight odor.	SOLUBILITY IN WATER:	Soluble.

SECTION IV – Fire and Explosion Hazard Data:

FLASH POINT (Method Used):	NA	This product is nonflammable. It will support combustion.		
FLAMMABLE LIMITS:	LEL:	NA	UEL:	NA
AUTOIGNITION TEMPERATURE	NA			
EXTINGUISHING MEDIA:	Use extinguishing media appropriate for surrounding fire including carbon dioxide, dry chemical, foam, halon, or water mist.			
SPECIAL FIRE FIGHTING PROCEDURES:	Wear appropriate protection for the surrounding fire. When fighting chemical fires wear self-contained breathing apparatus and full protective clothing. Do not release runoff to sewers and waterways. Use water spray to keep fire-exposed containers cool. Containers may explode in heat of fire.			
UNUSUAL FIRE AND EXPLOSION HAZARDS:	When subjected to heat and flames, toxic gases such as acrolein, ammonia, hydrogen chloride, carbon dioxide and carbon monoxide may be released. When water evaporates product may combust. Mechanical shock and static discharge increase risk of explosion.			

SECTION V – Reactivity Data:

STABILITY:	Stable:	X	Unstable:	
Conditions to Avoid:	Avoid contact with incompatible materials, excess heat and ignition sources.			
INCOMPATIBILITY (Materials to Avoid):	Strong oxidizers, strong acids, strong alkalis and metals. Always test for compatibility before mixing or storing together. Glycerin is incompatible with strong oxidizers such as potassium chlorate or potassium permanganate and may explode on contact with these compounds. Explosive glyceryl nitrate is formed from a mixture of glycerin and nitric and sulfuric acids. Perchloric acid, lead oxide + glycerin form perchloric esters which may be explosive. Glycerin and chlorine may explode if heated and confined.			
Corrosivity:	The ammonium chloride component is extremely corrosive in the presence of copper, brass and bronze. Corrosive in presence of steel and stainless steel. Slightly corrosive in presence of aluminum.			
HAZARDOUS POLYMERIZATION:	May Occur:		Will Not Occur:	X
Conditions to Avoid:	None known.			
DECOMPOSITION PRODUCTS:	None known under normal handling and storage conditions.			

SECTION VI – Health Hazard Data:

ROUTE(S) OF ENTRY:	Skin/Eye	Skin		
Inhalation:	Yes	Contact:	Yes	Absorption: Yes Ingestion: Unlikely

HEALTH HAZARDS (Acute and Chronic):**Acute (Short-Term) Effects:**

Inhalation: Dust, mist and vapor inhalation may be harmful to the respiratory system. Respiratory tract irritation possible from inhalation of dust, mists and vapor. Causes eye irritation. May cause skin irritation. Exposure to airborne mist and particulate may cause headache and drowsiness. May be harmful (acidosis) if swallowed. May be a central nervous system hazard and increase blood sugar levels. Persons with preexisting conditions may be more susceptible.

Ingestion: Not likely. If ingested, may cause digestive tract irritation, nausea, diarrhea and central nervous system effects.

Eye and skin contact: Can be absorbed through the skin. Dust, mist and vapor exposure may cause irritation to eyes and mild irritation to skin.

SECTION VI – Health Hazard Data (Continued):**Chronic (Long-Term) Effects:**

Repeated and prolonged inhalation of dust and mist may cause impaired lung function (asthma). Smoking aggravates the effects of excessive exposure. Prolonged or repeated skin contact may cause dermatitis. May be toxic to the kidneys. Repeated or prolonged exposure can produce target organ damage. Glycerin may cause damage to reproductive system.

Toxicological Data on Ingredients: Glycerin: Oral (LD50): Acute: 12600 mg/kg [Rat], 4090 mg/kg [Mouse]. Dermal (LD50): Acute: 10000 mg/kg [Rabbit]. MIST(LC50): Acute: 570 mg/m 1 hours [Rat]. Ammonium chloride: Oral (LD50): 1300mg/kg (mouse); (LDL) 2000mg/kg (Human Infant –Oral).

Special Remarks: Ammonium chloride may affect genetic material. Ammonium chloride passes through the placental barrier.

CARCINOGENICITY: NTP: No IARC: No OSHA REGULATED: No

* * This product does not contain an ingredient that is designated as a carcinogen by IARC, NTP, or OSHA.

** This product does not contain or produce a chemical known to the State of California and other states, if applicable, to cause cancer.

SIGNS AND SYMPTOMS OF EXPOSURE: Skin, eye and respiratory tract irritation. May produce stinging redness, burning sensation, and tearing with no eye injury. May cause central nervous system effects and increased blood sugar levels.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Individuals with preexisting conditions of the lungs (asthma) may have increased susceptibility to the toxicity of excessive exposure including people with upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema, and asthma.

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation: Exit to fresh air. Support breathing as needed. If conditions persist, seek medical attention.

Eyes: Check for and remove contact lenses. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

Skin: Remove contaminated clothing and wash affected area with plenty of soap and water. If redness or irritation develops, seek medical attention. Discard or decontaminate clothing before reuse.

Ingestion: Immediately rinse mouth with plenty of water. If within 30 minutes of ingestion give a small glass of water. Do not give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical attention if a large quantity of this material is swallowed or if necessary.

Note to Physician: Inform that potential dust, mist and vapor exposure is of concern. Glycerin may be absorbed in potentially harmful amounts if applied in large quantities to severe burns over large areas of the body. This can result in elevated serum osmolality and subsequent osmotic shock. Treat symptomatically and supportively.

SECTION VII – Precautions for Safe Handling and Use:**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

Caution: This material is a liquid and is slippery on surfaces. Do not leave spills on floors unattended. Barricade spill area until cleanup is complete. Utilize appropriate personal protective clothing. Avoid stepping in spilled material.

Small Spill Control: Dilute with water and mop up or absorb with an inert dry material and place in a waste disposal container. Thoroughly clean area with soap and water. Rinse with plenty of water. Properly dispose of contaminated material.

Large Spill Control: Stop the leak if without risk. Utilize appropriate personal protective equipment (See Section 8, Personal Protection in Case of Large Spill). Contain the spill using appropriate spill containment materials including absorbents such as kitty litter or spill kit materials and cloth towels. If the product is in liquid form: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources.

During clean up of dried material avoid creating airborne dust (e.g., use wet methods, or HEPA vacuum). Where product is dry and may become airborne utilize appropriate personal protective equipment such as a NIOSH approved air-purifying respirator equipped with filters approved for particulate (P-100), and protective clothing. Prevent the spread of the dry material and keep dust levels to a minimum. Wet the dried material, scoop up, vacuum or mop the material, and place it into closed containers for reuse or disposal. Once material is swept up, the area may be rinsed with water.

SECTION VII – Precautions for Safe Handling and Use (Cont.):

Large Spill Control (Cont.): Finish cleaning by spreading water on the contaminated surface. Clean up and properly dispose of contaminated material. Be careful that the product is not present at an airborne concentration above the TLV/PEL. Make sure that no slip hazard exists once material has been cleaned up.

Do not reuse empty containers for food, clothing or products for human consumption. Call for assistance on disposal.

If an emergency situation exists, contact spill response personnel.

WASTE DISPOSAL METHOD: Dispose of in accordance with local, state, and/or federal regulations. This material is not classified as a hazardous waste and is not regulated under RCRA. Small amounts and cleanup debris can be disposed of as regular waste.

CERCLA: Hazardous substances: Ammonium chloride: report spills greater than 5000 lbs (2268 kg).

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Storage: When not in use, store in tightly closed containers in a dry, cool area. Keep away from sources of ignition. Ground all equipment containing material.

Handling: If material has dried out add water to maintain consistency. Keep floors clean and dry. Use only with adequate ventilation that keeps dust/mist levels below the TLV/PEL. Handle so as not to create airborne dust. Avoid breathing airborne contaminants. Utilize appropriate NIOSH-approved respirator if airborne contaminant exposures are above TLV/PEL.

Handle with care. Avoid unnecessary eye and prolonged skin contact. Wash thoroughly after handling. Do not ingest. Do not breathe.

PRECAUTIONS TO BE USED DURING REPAIR AND MAINTENANCE: Not Applicable

OTHER PRECAUTIONS: Keep out of reach of children. Do not allow material to dry out. Keep work surfaces clean. Clean surfaces with wet sponge, rinsing frequently. Do not dry sweep. Ensure that an eyewash station and safety showers are near the work location.

SECTION VIII – Control Measures:

VENTILATION:

Local Exhaust: If necessary, use enclosures with local exhaust ventilation to keep exposures below TLVs/PELs.

Mechanical: If necessary to keep dust levels below TLVs/PELs. Recommended for confined areas and when handling dry material.

Special: NA.

RESPIRATORY PROTECTION (Specify Type): Under normal conditions of use no respiratory protection is needed. Where exposure above the TLV/PEL is likely, utilize a NIOSH approved dust mask to protect from particulate, or a half-mask or full-facepiece air-purifying respirator (APR) equipped with filters approved for particulate and organic vapors. APRs do not protect workers in oxygen deficient atmospheres. Comply with OSHA respirator regulation 29 CFR 1910.134.

PROTECTIVE GLOVES: Use appropriate chemically resistant gloves (impervious).

EYE PROTECTION: Wear splash goggles, safety glasses with side shields or face shield. Cover goggles are recommended if product becomes airborne.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate impervious protective clothing to prevent skin exposure during normal conditions of use.

SAFETY STATIONS: Make available in the work area emergency eyewash stations, and washing facilities.

WORK/HYGIENIC PRACTICES: Avoid skin and eye contact. Avoid breathing dust and mist. Practice good personal hygiene. Do not eat, drink, smoke, or apply cosmetics in work areas. Wash face and hands prior to eating, drinking or other hand-to-mouth activities. Launder contaminated clothing before reuse. Use good personal and industrial hygiene practices.

PERSONAL PROTECTION IN CASE OF A LARGE SPILL:

Splash goggles. Full suit. Organic vapor respirator. Boots. Chemical resistant gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult an emergency response specialist BEFORE handling this product.

SECTION IX – Transportation Data:

DOT Proper Shipping Name: Not Regulated by DOT

UN Hazard Class:

UN Number:

DOT Label:

SECTION X – Label Information:**SUBSTANCE IDENTITY:** E Z 40 SOLDER FLUX (CAT # 50015)**CAUTION:** Avoid generating and breathing airborne particulate and vapors. Wear protective gloves when using the product.**HEALTH HAZARDS:** This product contains ingredients that can cause eye, skin, nose and throat irritation. This product can be absorbed through the skin. Can cause central nervous system effects and kidney damage.**ROUTES OF ENTRY:**

Inhalation: YES Skin/Eye Contact: YES Skin Absorption: YES Ingestion: Unlikely

SECTION XI – Generic Label Information:**SUBSTANCE IDENTITY:** E Z 40 SOLDER FLUX (CAT. # 50015)**HEALTH HAZARDS:**

Toxic	<u> X </u>	Corrosive	<u> </u>
Highly Toxic	<u> </u>	Sensitizer	<u> </u>
Irritant	<u> X </u>	Carcinogen	<u> </u>

HMIS LABEL CODE:

Health = 2
 Flammability = 1
 Reactivity = 0
 Personal Protection = E

IMMEDIATE AND DELAYED TARGET ORGAN EFFECTS:

Cutaneous Hazard (Skin Damage)	<u> X </u>	Eye Hazard	<u> X </u>	Pulmonary Disfunction (Lung Damage)	<u> X </u>
Neurotoxin (Nervous Sys. Damage)	<u> X </u>	Nephrotoxin (Kidney Damage)	<u> X </u>	Hepatotoxin (Liver Damage)	<u> </u>
Reproductive Toxin (Birth Defect, Sterility)	<u> X </u>	Hematopoietic (Blood Sys. Damage)	<u> </u>		

ROUTES OF ENTRY:Ingestion: Unlikely Inhalation: X Skin Absorption: X Skin/Eye Contact: X **PHYSICAL HAZARDS:**

Combustible Liquid	<u> </u>	Compressed Gas	<u> </u>	Explosive	<u> </u>
Flammable Gas	<u> </u>	Flammable Liquid/Solid	<u> </u>	Organic Peroxide	<u> </u>
Oxidizer	<u> </u>	Pyrophoric	<u> </u>	Unstable (Reactive)	<u> </u>
Water reactive	<u> </u>				

SECTION XII – Disclaimer:

Creative Craftsmen Co. Inc. expressly disclaims all expressed or implied warranties for merchantability and fitness for a particular purpose, with respect to the product or information provided herein.

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