

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT NAME: Quicksilver Acid Paste Solder: 8838

MANUFACTURER: Tifco Industries, Inc.
PO Box 40277
Houston, TX 77240
Phone: 281-571-6000

EMERGENCY TELEPHONE NUMBER: 800-255-3924

2. HAZARD IDENTIFICATION:

Emergency Overview: This product is normally not considered hazardous as shipped. Avoid eye contact or inhalation of dust from the product. When this product is used in a welding process, the most important hazards are welding fumes and heat.

Classification of the Substance/Mixture

CLP/GHS Classification (1272/2008):

Eye Irritation, Category 2

Hazardous to the Aquatic Environment – Long-Term Hazard, Category 2

EU Classification (67/548/EEC):

Irritant (Xi), Dangerous for Environment (N), R36/37/38, R51/53

Hazardous Classification per 29CFR 1910.1200 (Rev. July 1, 2012):

Eye Irritation, Category 2

Hazardous to the Aquatic Environment – Long-Term Hazard, Category 2

Labelling:

Symbols:  

Signal Word: Warning

Hazard Statements:

H319 – Causes serious eye irritation.

H411 – Toxic to aquatic life with long lasting effects

Precautionary Statements:

P264 – Wash skin and hair thoroughly after handling.

P270 – Do not eat, drink or smoke when using this product.

P271 – Use only outdoors or in well-ventilated area.

P273 – Avoid release to the environment.

P280 – Wear protective gloves/eye protection/face protection.

P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 – IF eye irritation persists: Get medical advice/attention.








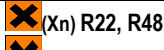
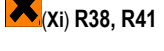








P391 – Collect spillage.

P403+P233 – Store in a well-ventilated place. Keep container tightly closed.

P501 – Dispose of contents/container in accordance with local/regional/national/international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS:

Chemical Identity	CAS #	Range %	OSHA PEL (mg/m3)	ACGIH-TLV (mg/m3)	Carcinogenicity	EU Classification (67/548/EEC)	CLP/GHS Classification (1272/2008)	Hazardous Classification per 29CFR 1910.1200 (Rev. July, 2012)
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S025	185332-92-7	15-35	N/A	N/A	No		(H315) Skin Irrit.. 2  (H319) Eye Irrit.. 2A  (H335) STOT SE 3 	(H315) Skin Irrit.. 2  (H319) Eye Irrit.. 2A  (H335) STOT SE 3 
Diethanolamine	111-42-2	1-4	N/A	N/A	No	 	(H302) Acute Tox. 4  (H315) Skin Irrit.. 2  (H318) Eye Irrit.. 1  (H373) STOT RE 2 	(H302) Acute Tox. 4  (H315) Skin Irrit.. 2  (H318) Eye Irrit.. 1  (H373) STOT RE 2 
Sebacic Acid	111-20-6	1-5	N/A	N/A	No	Not Dangerous	Not Hazardous	Not Hazardous
Tin	7440-31-5	60-90	2	2	No	Not Dangerous	Not Hazardous	Not Hazardous
#Silver	7440-22-4	1-5	.01	.01	No	Not Dangerous	Not Hazardous	Not Hazardous

Important This section covers the materials of which the products manufactured. The fumes and gases produced during normal use of this product are covered in section 10. The term "Hazardous" in "Hazardous Material" should be interpreted as a term required and defined in OSHA Hazard Communication Standard 29CFR 1910-1200 and it does not necessarily imply the existence of hazard. The chemicals or compounds reportable by Section 313 of SARA are marked by the symbol #.

4. FIRST AID MEASURES:

Inhalation: Remove victim to fresh air. If not breathing, trained personnel may give artificial respiration. If breathing is difficult, give oxygen by trained personnel. Seek medical attention.

Skin: Immediately remove contaminated clothing. Flush area of skin contact immediately with large amounts of water for at least 15 minutes. If irritation persists after flushing, get medical attention promptly. Launder contaminated clothing before reuse.

Eye: Remove contact lenses. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get medical attention if irritation persists.

Ingestion: If swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES:

Flammable Class: Nonflammable

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use the extinguishing media recommended for the burning material and fire situation.

Explosion Hazards: This product is a nonflammable solid. Product will burn under fire conditions.

Fire Fighting Instructions: When fighting fires involving this product, wear full protective gear. For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES:

Personal Precautions: Refer to section 8.

Environment Precautions: Refer to section 13.

Cleaning Measures: Waste disposal method: Scoop up excess material and wash affected areas with soap and water. Avoid contact with skin and eyes. Prevent spills from entering sewers, waterways, or contaminating soil. Avoid inhaling vapor and/or mists. Do not get spilled material on skin, clothing, or in eyes. Wear protective clothing (gloves, safety glasses).

7. HANDLING AND STORAGE:

Handling Precautions: Avoid contact with skin and clothing, using protective equipment as needed.

Work and Hygiene Practices: To prevent ingestion following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing or protective equipment before entering eating/drinking areas.

Storage Precautions: Store away from incompatible materials (see Section #10). Keep lid tightly closed. Store between 5°C (40°F) to 25°C (77°F).

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION:

Engineering Controls: The use of local ventilation is required to maintain the concentration of fumes evolved from the soldering/brazing process to well below the occupational exposure limits, within the operator's breathing zone and the general

vicinity. Use of process enclosures, exhaust systems, and other engineering/administrative controls should be designed in accordance with local conditions. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices [most recent edition], for details.

Personal protection:

Eyes and Face: Wear safety glasses with side shields as a minimum level of protection. Consult ANSI Z87.1 for more information.

Skin: Wear chemical resistant gloves. When material is heated, wear thermal-insulated gloves to protect against burns.

Respiratory: When exposure limits (listed above) are exceeded or ventilation is inadequate, wear a NIOSH or European Standard approved respirator, in accordance with OSHA respirator regulations [29 CFR 1910.134] or European Standards [EN149]. Consult ANSI Z88.2 *American National Standard for Respiratory Protection* for guidance on proper selection, use and care of respirators.

Protective Clothing: Avoid skin contact. Wear chemical resistant clothing (long-sleeved shirt buttoned at the wrist) as necessary to prevent contact. For soldering/brazing operations where hot metallic parts are handled and molten metal may be present, wear heat-resistant gloves and clothing to protect from burns.

Work Hygienic Practices: Minimize exposure in accordance with good hygiene practice. Good general hygienic practices include: Eating, drinking, and smoking should not be permitted in work areas. Wash thoroughly after handling, and before eating, drinking, using tobacco, applying cosmetics, or using the toilet. Keep area clean. Remove contaminated clothing promptly. Launder contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing. Avoid breathing dust, vapor or mist.

Other Precautions: Educate and train employees in the safe use and handling of this product.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Viscous Paste

Color: Grey

Odour: Characteristic Odor

Odour Threshold: Not Available

pH Value: Not Available

Melting Point/Melting Range: >300° F

Freezing Point: Not Available

Boiling Point/Boiling Range: 522° F (Binder Only)

Flash point: Not Available

Evaporation Rate: Not Available

Self-in flammability: Not Determined

Explosion limits: Not Determined

Vapour pressure: Not Determined

Vapour density: Not Determined

Density at 20°C: Not Determined

Relative density: Not Determined

Solubility: Negligible

Partition coefficient: Not Available

Auto-ignition temperature: Not Determined

Decomposition temperature: Not Available

Other Information: No available data.

10. STABILITY AND REACTIVITY:

Chemical Stability: This product is stable under normal conditions.

Reactivity: Not anticipated to be reactive at ambient conditions.

Polymerization: Will not occur.

Conditions to Avoid: Avoid contact with incompatible materials. Avoid extreme heat. Avoid prolonged exposure to air and moisture.

Incompatible Materials: Acids, alkalies, oxidizing agents

Hazardous Decomposition Products: Carbon oxides, toxic fumes, hydrogen chloride, tin oxides, metal oxide fumes.

11. TOXICOLOGICAL INFORMATION:

Signs and Symptoms of Overexposure: Fumes and gases generated during use of this product, in conjunction with heating, welding, brazing or soldering procedures, can be dangerous to your health. Aggravation of pre-existing respiratory or allergic conditions may occur.

Acute Effects:

Eye Effects: Can cause severe irritation, burns and abrasion.

Skin Effects: Short term skin contact is usually not harmful. However, in sensitized individuals, or in contact with damaged skin, it may cause severe irritation, dermatitis.

Skin Absorption: Material may be absorbed through the skin and is harmful if skin absorption occurs.

Ingestion: May be harmful if swallowed. Ingestion may cause gastrointestinal discomfort, central nervous system (CNS) depression, nasal hemorrhaging, diarrhea, weakness, gastrointestinal damage, liver damage, kidney damage. Prolonged ingestion of silver compounds may cause a permanent bluish discoloration of the skin, eyes, and mucous membranes.

Inhalation: If inhaled, may cause: irritation of the respiratory tract, irritation or inflammation of the nose and throat, coughing, respiratory system discomfort, pulmonary edema. Prolonged inhalation of silver compounds may cause a permanent bluish discoloration of the skin, eyes, and mucous membranes.

LD/LC50 Values that are relevant for classification		
Diethanolamine 111-42-2		
Oral	LD50	710 mg/kg (rat)
Dermal	LD50	12200 mg/kg (rabbit)
Intraperitoneal	LD50	120 mg/kg (rat)
Intravenous	LD50	778 mg/kg (rat)
	LC50	1460 mg/l (96h) (fathead minnow)

LD/LC50 Values that are relevant for classification		
Sebacic Acid 111-20-6		
Inhalation	LC50	>4500 mg/m3 (rat)

LD/LC50 Values that are relevant for classification		
Silver 7440-22-4		
Oral	LD50	>5000 mg/kg (rat)

Chronic Effects: Overexposure to welding fumes may affect pulmonary function. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. This product contains Diethanolamine which is listed by IARC as Group 2B 'possible human carcinogen'. ACGIH lists Diethanolamine as Group A3 'confirmed animal carcinogen, unknown relevance to humans. Not likely to cause cancer in humans except under unlikely routes/levels of exposure'.

12. ECOLOGICAL INFORMATION:

Eco toxicological Information: This product has not been tested, but is expected to be toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

Bioaccumulation/Accumulation: No data available.

Distribution: No data available.

Aquatic Toxicity (Acute): No data available.

Chemical Fate Information: No data available.

General Comments: None

13. DISPOSAL CONSIDERATIONS:

Product: For product elimination, dispose of in accordance with EPA regulations.

Package: May be disposed in approved landfills provided local regulations are observed.

Disposal of waste material from the use of this product may be subject to federal, state and local regulations. Waste characterizations and compliance with applicable laws are the sole responsibility of the waste generator. Reclaimed scrap metal has monetary value. Contact a commercial re-claimer for information on recycling scrap metals. All recovered material should be packaged, labeled, transported and disposed or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices.

Do not reuse empty containers.

14. TRANSPORT INFORMATION:

PROPER SHIPPING NAME: Environmentally hazardous substance, solid, n.o.s. (Silver metal powder)

PRIMARY HAZARD CLASS/DIVISION: 9 Environmentally Hazardous Substances

UN/NA NUMBER: 3077

PACKING GROUP: III

BULK FREIGHT CLASS: Per 49CFR 171.4: For ground, rail or air shipments, Marine pollutants are regulated as a hazardous material in bulk quantities only. Nonbulk shipments are not regulated for shipping.

ROAD AND RAIL (ADR/RID)

PROPER SHIPPING NAME: Environmentally hazardous substance, solid, n.o.s. (Silver metal powder)

PRIMARY HAZARD CLASS/DIVISION: 9 Environmentally Hazardous Substances

UN/NA NUMBER: 3077

PACKING GROUP: III

AIR (ICAO/IATA)

PROPER SHIPPING NAME: Environmentally hazardous substance, solid, n.o.s. (Silver metal powder)

PRIMARY HAZARD CLASS/DIVISION: 9 Environmentally Hazardous Substances

UN/NA NUMBER: 3077

PACKING GROUP: III

SPECIAL PROVISIONS: A197: May be shipped as "Not restricted" provided that the net quantity in any receptacle does not exceed 5kg or 5L.

VESSEL (IMO/IMDG)

PROPER SHIPPING NAME: Environmentally hazardous substance, solid, n.o.s. (Silver metal powder)

PRIMARY HAZARD CLASS/DIVISION: 9 Environmentally Hazardous Substances

UN/NA NUMBER: 3077

PACKING GROUP: III

SPECIAL PROVISIONS: Marine pollutants having a net quantity of 5L or less for liquids or a net mass per single or inner packaging of 5 kg or less for solids are not subject to any other provision of the Code relevant to marine pollutants.

COMMENTS: This product is classified for transport per US DOT, ADR/RID, ICAO/IATA and IMO/IMDG.

15. REGULATORY INFORMATION:

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Reportable Ingredients	Wt%	Cercla Reporting Quantity
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Diethanolamine	<5	100 lbs
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Silver	<5	1000 lbs
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TSCA (TOXIC SUBSTANCE CONTROL ACT): The components of this material are included on the TSCA inventory

California Proposition 65: Diethanolamine, listed for cancer

EPCRA/SARA Title III Toxic Chemicals

UNITED STATES SARA TITLE III

Fire: No

Pressure Generating: No

Reactivity: No

Acute: Yes

Chronic: Yes

The following metallic components are listed as SARA 313 "Toxic Chemicals" and potential subject to annual SARA reporting. See Section 3 for weight percentage.

Ingredient Name	Disclosure Threshold
Silver	.01 mg/m3

16. OTHER INFORMATION:

The information in this document is believed to be correct as of the date issued. However, no warranty is expressed to be implied regarding the accuracy or completeness of this information. This information and product are furnished on the condition that the person receiving them shall make his own determinations as to the suitability of the product for his particular purpose and on the condition that he assumes the risk of his use thereof.

This Material Safety Data Sheet complies with the EC directives 91/155/EEC and 93/112/EEC, including modifications 2001/58/EC.

Complies with OSHA Communication Standard 29 CFR 1910.1200 and Superfund Amendments and Reauthorization Act (SARA) of 1986 Public Law 99-499

HMIS Ratings

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	1

Personal Protection index "1" = safety glasses, gloves and vapor respirator or adequate ventilation.

Hazard Statements:

H302 – Harmful if swallowed.

H315 – Causes skin irritation.

H318 – Causes serious eye damage.

H319 – Causes serious eye irritation.

H335 – May cause respiratory irritation.

H373 – May cause damage to eyes, kidneys, liver, respiratory system, skin, and central nervous system through prolonged or repeated exposure.

H411 – Toxic to aquatic life with long lasting effects

R-Phrases:

R22 – Harmful if swallowed.

R36/37/38 – Irritating to eyes, respiratory system and skin.

R41 – Risk of serious damage to eyes.

R48 – Danger of serious damage to health by prolonged exposure.

R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S-Phrases:

S24/25 – Avoid contact with skin and eyes.

S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection.

S45 – In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S46 – If swallowed, seek medical advice immediately and show this container or label.

S53 – Avoid exposure – obtain special instructions before use.

End of the document.