

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Amerway Tiger's Eye Translucent Gel Flux

**Product Type:** Liquid/Gel

**Recommended Use:** Soldering Flux

**Latest Revision Date:** March 20, 2024

### Details of the supplier of the safety data sheet:

**Manufacturer:** Amerway Inc.  
3701 Beale Ave.,  
Altoona, PA 16601

**Phone:** 814-944-0200

**Fax Number:** 814-944-1463

**Emergency Telephone Numbers:** CHEMTREC: 800-424-9300  
CHEMTREC (Outside US & Canada): 703-527-3887

## SECTION 2: HAZARDS IDENTIFICATION

**OSHA/HCS Status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Physical Hazards:** Not applicable

<b>Health Hazards:</b>	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/irritation	Category 1

<b>Environmental Hazards:</b>	Aquatic hazard (Acute)	Category 2
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This substance is classified and labeled according to the Globally Harmonized System (GHS).



**GHS05 Corrosive**



**GHS07 Harmful**



**GHS09 Environmental**

**Signal Word:** Danger

**Hazard Statement(s):** Harmful if swallowed. Causes skin irritation. Causes serious eye damage. Toxic to aquatic life.

### **Precautionary Statement(s):**

**Prevention:** Wash thoroughly after handling. Do not touch eyes. Do not eat, drink, or smoke when using this product. Avoid release to the environment. Wear protective gloves/clothing/eye protection/face protection.

**Response:** If swallowed: Get medical help. If on skin: Wash with plenty of water. If in eyes: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get emergency medical help. For specific treatment, refer to section IV. Rinse mouth. If skin irritation occurs: Get medical help. Take off contaminated clothing and wash before reuse. Collect spillage.

**Storage:** Store in a well-ventilated place. Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulations.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****Composition:**

<b><u>CAS No.</u></b>	<b><u>Common Name/Synonyms</u></b>	<b><u>% WT</u></b>
7646-85-7	Zinc Chloride	25-35
56-81-5	Glycerol	1-10
Trade Secret	Surfactant	1-10

Concentrations listed within a range protect proprietary information or account for batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

**SECTION 4: FIRST AID MEASURES**

**Emergency Overview:** Take off all contaminated clothing immediately. Ensure that proper training of the hazards associated with the materials involved are provided to handlers and medical personnel, and that precautions are maintained to prevent further exposure.

**Potential Health Effects Following:**

<b>Eye Contact:</b>	Immediately flush eyes with running water for at least 15 minutes. Remove contact lenses if present and easy to do so. If eye irritation persists, get medical advice or attention.
<b>Skin Contact:</b>	Immediately remove all contaminated clothing. Rinse skin with water, wash with a recognized skin cleaner. Wear appropriate protective gloves when handling contaminated clothing. Thoroughly wash all clothing before reuse. If skin irritation develops or if swelling, pain, and/or blisters appear, get medical advice or attention.
<b>Ingestion:</b>	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to unconscious persons. Call a poison center or physician if you feel unwell.
<b>Inhalation:</b>	Remove victim to fresh air, keep at rest in a position comfortable for breathing. Call a poison center or physician if you feel unwell. Performing mouth to mouth resuscitation may be dangerous, use a bag valve mask if available. If unconscious, place in a recovery position and seek medical attention immediately. If present, loosen tight clothing such as ties, collars, belts, or waistbands.

**Acute and Delayed Health Hazards:**

<b>Eye Contact:</b>	Serious eye irritation. Symptoms may include redness, burning sensations, swelling, and/or blurred vision.
<b>Skin Contact:</b>	Can cause skin dryness and irritation. May cause allergic reactions to the skin. Symptoms may include swelling, burning sensations, and blisters. Defatting dermatitis signs and symptoms include burning sensations and cracked appearances.
<b>Ingestion:</b>	May cause nausea or vomiting.
<b>Inhalation:</b>	May cause nausea, headaches, drowsiness, and dizziness. If material enters lungs, symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. These signs and symptoms may be characteristic of chemical pneumonitis.

**Most Important Symptoms/Effects:** Material has potential to be caustic. Prolonged skin contact may cause serious swelling and irritation. Rinse eyes immediately after eye contact. Be attentive of symptoms of potential chemical pneumonitis (coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever).

**Notes to Physicians and First Aid Providers:** Treat patients symptomatically. If reason persists that hazards are still present, first-aid personnel should wear appropriate protective equipment such as gloves, self-contained breathing apparatus (SCBA), and eye/face protection. Mouth to mouth resuscitation may be dangerous, use a bag valve mask if needed and available.

**SECTION 5: FIRE-FIGHTING MEASURES**

<b>Suitable Extinguishing Media:</b>	Use water spray, dry chemical, or carbon dioxide. a tri-class dry chemical fire extinguisher. Sand or earth may be used for small fires, only.
<b>Unsuitable Extinguishing Media:</b>	None known.
<b>Flash Point:</b>	Not applicable
<b>Autoignition Temperature:</b>	Not applicable

**Explosion Limits:**

Upper: Not applicable  
Lower: Not applicable

**Specific Hazards Arising from the Chemical:**

This material is very toxic to aquatic life. Fire water contamination with this material must be contained and prevented from discharge into the environment.

**Hazardous Thermal Decomposition Products:**

Halogenated compounds.

**Regulatory Ratings:**

**NFPA (scale 0-4)**  
Health= 3  
Fire= 0  
Reactivity= 0



**HMIS (scale 0-4)**  
Health= 3  
Fire= 0  
Reactivity= 0

**Special Fire Fighting Equipment/Procedures:**

Remove all non-emergency personnel from the vicinity of the incident. Wear self-contained breathing apparatus (SCBA) for firefighting if necessary. If possible, move nearby containers out of the fire zone. Cool water spray may be used to maintain fire-exposed container temperatures.

**Special Protective Equipment for Personnel:**

Ignited material may release harmful thermal decomposition products. Fire-fighters and emergency personnel must utilize self-contained breathing apparatuses (SCBA) operating in positive pressure or other appropriate protection. Wear full protective clothing.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****Personal Precautions and Protective Equipment:**

Ensure adequate ventilation. Use personal protective equipment, including proper respiratory, eye/face, and skin protection. See section 8 for appropriate personal protective equipment. Remove unnecessary personnel and restrict access to the incident area. Collection of spillage should be maintained in appropriately labeled containers for either recovery or proper disposal. Refer to section 13 for proper waste disposal methods. No action shall be taken involving personnel who are without suitable training.

**Environmental Precautions:**

Should not be released into the environment. Avoid discharge into sewers/surface or ground water. Do not flush into surface water or sanitary sewer system. Inform relevant authorities if the product has caused environmental pollution. Use appropriate containment methods to prevent environmental contamination.

**Containment and Cleanup:**

For large spills, stop the flow of material if this action is without personal risk. Dike spilled material if possible. Sweep up or vacuum up spillage and collect in suitable container for recovery or disposal. For small spills, absorb with inert absorbent material such as vermiculite, sand, or earth and place into a well labeled container for later disposal. Keep in suitable, closed containers for disposal. Never return spillage to original containers. Refer to section 13 for proper waste disposal methods.

**SECTION 7: HANDLING AND STORAGE****Safe Handling Methods:**

Use proper protective equipment and avoid exposure to material. Observe good hygiene practices. Eating, drinking, and smoking should be prohibited where material is in use. Handlers of material should wash hands before eating, drinking, or smoking. Remove contaminated clothing before entering eating areas.

**Safe Storage Conditions:**

Keep containers tightly closed when not in use. Keep containers in well ventilated areas.

**Other Precautions and Incompatibilities:**

Prevent material from contact with incompatible materials. Contact with strong oxidizing materials may result in degradation of materials. Store away from direct sunlight. Do not reuse empty containers. Remaining residues in empty containers have the potential to be an environmental pollutant and should be handled and stored as if they were the material itself.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines:** (as Zinc Chloride) PEL 1 mg/m<sup>3</sup> (OSHA); TLV 1 mg/m<sup>3</sup> Ceiling 2 mg/m<sup>3</sup> (ACGIH)

**Occupational Exposure Limits:****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

<u>Component</u>	<u>Type</u>	<u>Values</u>
Zinc Chloride	TWA	1 mg/m <sup>3</sup>
Glycerol	TWA	5 mg/m <sup>3</sup> 15 mg/m <sup>3</sup>

**US. ACGIH Threshold Limit Values (TLV)**

<u>Component</u>	<u>Type</u>	<u>Values</u>
Zinc Chloride	TWA	1 mg/m <sup>3</sup>
	STEL	2 mg/m <sup>3</sup>

**US. NIOSH: Pocket Guide to Chemical Hazards (REL)**

<u>Component</u>	<u>Type</u>	<u>Values</u>
Zinc Chloride	TWA	1 mg/m <sup>3</sup>
	STEL	2 mg/m <sup>3</sup>

**Engineering Controls:** Use with adequate ventilation systems. If applicable, utilize process enclosures in handling areas. Monitor airborne concentration levels and keep within regulatory limits. Provide eyewash stations and safety showers for emergency use.

**Environmental Exposure Controls:** Work process equipment used that handles this product should be monitored regularly to ensure that environmental emissions do not exceed local, state, or federal regulations. Ensure that equipment is leak-proof and use closed vessels where possible. If needed, utilize filters and scrubbers to maintain acceptable emissions. Engineering modifications may be necessary if material is being overexposed to the environment.

**Personal Protective Equipment and Protective Measures:**

<b>Skin and Body:</b>	Protective, chemical resistant gloves and clothing complying with approved standards. Check glove manufacturers' specifications to determine approximate breakthrough times. Ensure that glove materials are compatible with all materials used in the workplace.
<b>Respiratory:</b>	Utilize a respirator that meets the appropriate standards for the level of exposure. For high exposure applications, use a chemical rated respirator with organic vapor cartridges and full facepieces. Ensure that proper fitting and training is provided to personnel who handle hazardous materials.
<b>Eye and Face:</b>	If not using a full face respirator, ensure that safety eyewear complies with approved standards. Chemical resistant splash goggles must be worn when handling materials. Depending on the degree of exposure, higher eye/face protection may be needed. Ensure that eyewash stations and safety showers are present in areas where material is handled.
<b>Other:</b>	Appropriate footwear should be chemical resistant. Higher degrees of protection may be required dependent on the specific application and workplace conditions. When evaluating additional protective equipment, consider the inherent hazards of the material, environmental conditions, and ergonomic considerations.

**Additional Considerations:** The above personal protective equipment (PPE) are recommendations based on the inherent hazards of the material used and may not include environmental considerations such as workplace conditions, practices, etc. The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate protective equipment necessary for the application and task involving exposure.

**Work Hygienic Practices:** Always observe good personal hygiene measures during and after handling of materials. Do not smoke near material. Wash hands or exposed areas before eating, drinking, or smoking to avoid accidental ingestion. Handlers of material should remove all contaminated clothing and protective equipment before entering eating facilities. Keep material separated from foodstuffs, beverages, and feed. Potentially contaminated clothing and protective equipment should not leave the workplace facilities. Provide eyewash stations and safety showers.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**


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**Appearance**

<b>Physical State:</b>	Gel-like Fluid
<b>Color:</b>	Clear, light
<b>Odor:</b>	Not Determined
<b>Odor Threshold:</b>	Not Determined
<b>pH:</b>	Neutral
<b>Melting Point/Range:</b>	-12.5 °C (9 °F)
<b>Boiling Point/Range:</b>	110 °C (230 °F)
<b>Critical Temperature:</b>	Not Determined
<b>Flash Point:</b>	Not Determined
<b>Evaporation Rate:</b>	Not Determined
<b>Flammability (Solid, Gas):</b>	Not Determined
<b>Explosive Limits</b>	
<b>Upper:</b>	Not Applicable
<b>Lower:</b>	Not Applicable
<b>Vapor Pressure, 38 °C:</b>	Not Determined
<b>Vapor Density:</b>	Not Determined
<b>Relative Density:</b>	1.469 (Water = 1)
<b>Solubility in Water:</b>	Soluble
<b>Partition Coefficient:</b>	Not Determined
<b>(n-octanol/water)</b>	
<b>Autoignition Temperature:</b>	Not Determined
<b>Decomposition Temperature:</b>	Not Determined
<b>Viscosity, 20 °C:</b>	Not Determined

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**SECTION 10: STABILITY AND REACTIVITY**


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<b>Reactivity:</b>	This product is non-reactive under standard conditions of use, storage, and transport.
<b>Chemical Stability:</b>	This product is stable under standard conditions.
<b>Hazardous Reactions:</b>	Under regular conditions, hazardous reactions will not occur.
<b>Conditions to Avoid:</b>	Avoid contact with incompatible materials.
<b>Incompatible materials:</b>	Contact with acids or alkalis may reduce product quality.
<b>Hazardous Decomposition Products:</b>	No hazardous decomposition products are known. Under standard conditions of storage and use, decomposition does not occur.

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**SECTION 11: TOXICOLOGICAL INFORMATION**


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<b>Acute Toxicity:</b>	ATE Oral - 500 mg/kg LD50 Oral - Rat - 350 mg/kg
<b>Skin Corrosion/Irritation:</b>	Skin - Rabbit Result: Mild skin irritation
<b>Serious Eye Damage or Eye Irritation:</b>	Eyes - Rabbit Result: Eye irritation - 24 h
<b>Respiratory or Skin Sensitization:</b>	Respiratory: Not studied, classification is not possible. Skin: Not studied, classification is not possible.
<b>Germ Cell Mutagenicity:</b>	Not studied, classification is not possible.
<b>Carcinogenicity:</b>	This product does not contain components that are classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans.
<b>Reproductive Toxicity:</b>	No data available. Not studied, classification is not possible.
<b>Specific Target Organ Toxicity, Single:</b>	No data available. Not studied, classification is not possible.

**Specific Target Organ Toxicity, Repeated:** No data available. Not studied, classification is not possible.

**Aspiration Hazard:** No data available. Not studied, classification is not possible.

#### **Routes of Exposure – Acute Health Effects**

**Eyes:** Causes serious eye damage.

**Skin:** Causes skin irritation.

**Ingestion:** No data available. Not studied, classification is not possible.

**Inhalation:** No data available. Not studied, classification is not possible.

**Chronic Health Hazards:** Repeated inhalation exposure may cause chemical pneumonitis.

#### **Symptoms Arising from Chemical/Toxicological Characteristics**

**Eyes:** Symptoms may include redness, pain, irritation.

**Skin:** Symptoms may include redness, pain, irritation.

**Ingestion:** No data available. Not studied, classification is not possible.

**Inhalation:** No data available. Not studied, classification is not possible.

**Additional Information or Definitions:** Aspiration may lead to: Lung oedema, pneumonia, chemical pneumonitis.  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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### **SECTION 12: ECOLOGICAL INFORMATION**

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**Ecotoxicity, Aquatic Toxicity:** This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills or other serious environmental exposure can have a harmful or damaging effect on the environment.

**Toxicity to fish:** LC50 - Pimephales promelas (fathead minnow) - 9,640.00 mg/l - 96 hr  
LC50 - Lepomis macrochirus (bluegill) - > 1,400 mg/l, 96 hr

**Toxicity to daphnia And other aquatic invertebrates:** EC50 - Daphnia magna (Water flea) - 5,102.00 mg/l - 24 hr  
Immobilization EC50 - Daphnia magna (Water flea) - 6,851 mg/l - 24 hr

**Toxicity to algae:** EC50 - Desmodesmus subspicatus (green algae) - > 2,000.00 mg/l - 72 hr  
EC50 - Algae - > 1,000.00 mg/l - 24 hr

**Persistence and Biodegradability:** No data is available on the degradability of any components of the product mixture.

**Bioaccumulative Potential:** No data available, not well studied.

**Mobility in Soil:** No data available, not well studied.

**Other Adverse Effects:** No data available, not well studied.

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### **SECTION 13: DISPOSAL CONSIDERATIONS**

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**Waste Disposal Methods:** When possible, avoid generation of waste. Collect and reclaim or dispose of materials in sealed containers at licensed waste disposal sites, or for collection by approved, licensed disposal contractors. Disposal must be made according to all federal, state, and local regulations that may apply.

**Hazardous Waste Code:** Not applicable.

**Waste from Residues Empty Containers:** Empty containers or liners retain product residues and have the potential to be hazardous. Empty containers and liners **Or** should be handled as if they were the material itself. Material residues and containers should be disposed of in a safe manner, see Waste Disposal Methods. Do not reuse containers that have not been properly washed.

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**SECTION 14: TRANSPORT INFORMATION**

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Land Transport (DOT/ADR/RID), Sea Transport (IMDG), Air Transport (ICAO-TI/ITA-DGR)

UN/NA Number: UN1840

UN Proper Shipping Name: Zinc chloride, solution

Transport Hazard Class(es): Class 8 – Corrosive material/Label 8.



Packing Group: III

Environmental Hazards: Yes

ERG Number: 154

Special Precautions: Warning: Corrosive liquids. Read safety instructions, SDS, and all first-aid, fire, and emergency procedures before handling the product. Always transport upright in closed containers.

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**SECTION 15: REGULATORY INFORMATION**

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**U.S. Federal Regulations**

TSCA 12(b): All components listed for the subject finished product are on the TSCA Inventory of Chemical Substances and are not subject to any chemical specific regulation under TSAC Section 12(b) export notification requirements delineated at 40 CFR part 707, subpart D.

All ingredients are listed or exempt from listing.

SARA 303/304 Hazardous Categorization: None of the ingredients are listed.

SARA 311/312 Hazardous Categorization: Immediate Acute Health Hazard  
Chronic Health Hazard**Proposition 65, Chemicals Known to Cause:**

Cancer: None of the ingredients are listed.

Reproductive Toxicity (Females): None of the ingredients are listed.

Reproductive Toxicity (Males): None of the ingredients are listed.

Developmental Toxicity: None of the ingredients are listed.

**Other Regulations**

Clean Air Act: Not regulated

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**SECTION 16: OTHER INFORMATION**

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**Preparation Information**Name: Ethan Miller  
Company: Amerway, Inc.  
E-Mail: emiller@amerway.com

Creation Date: 01/01/2012

Latest Revision: 03/20/2024

Revision Summary: This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**Disclaimer**

This information is given in good faith, no warranty, express or implied is made. Amerway Inc. makes no representations and assumes no responsibility as to the accuracy, completeness, or suitability of this data for any purchasers use. The data on this Safety Data Sheet relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and the necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Safety Data Sheet as a source for hazard information.

**End of SDS**