

# SAFETY DATA SHEET

DATE REVISED: January 1, 2015

**Product Name:** Ruby Fluid Soldering Flux  
**Manufacturer:** Forney Industries, Inc. 2057 Vermont Dr., Fort Collins, CO 80525  
**Emergency Phone Number:** 1-800-535-5053  
**International Emergency Phone Number:** 352-323-3500  
**Other Information Calls:** 1-800-851-6038  
**Email:** customerservice@forneyind.com

**To the Purchaser:** This SDS contains important environmental, health, and toxicology information for your employees who have ordered this product. Please be sure this information is given to them. If you resell this product, a copy of the SDS should be given to the buyer.

**H.M.I.S. INFORMATION: HEALTH = 2      FLAMMABILITY = 0      REACTIVITY = 1**

## SECTION I - IDENTIFICATION

**Common Name:** Ruby Fluid  
**Chemical Family:** Soft Soldering Flux  
**CAS Number:** NA  
**Chemical Name:** NA  
**Formula:** See below

## SECTION II – HAZARDS IDENTIFICATION

Classification of Substance or Mixture:

**Classification (CLP):** Corrosive  
**Label Elements (CLP):** Corrosive



Corrosive      Irritant      Environmentally Damaging

**Precautionary Phrases:** P264, P270, P273, P280, P301+P312, P305+P351+P338, P330, P337+P313, P301+P330+P331, P304+P340, P309+P311

**Risk Phrases:** R36/37/38, R34

**Safety Phrases:** S-26, S-27, S-36/37/39, S-45, S18, S61, S62, S64

See section XVI for full text description of S and R phrases

**Other Hazards:** None if used properly

## SECTION III- COMPOSITION INFORMATION

Components	CAS Number	%	OSHA PEL	H Phrases
Zinc Chloride	7646-85-7	30-45	1 mg/m <sup>3</sup>	H302, H314, H319, H335, H400, H401

Unlisted percentages are non-hazardous stabilizers, and water. None of the materials in this product are listed in NTP, IARC, or OSHA as carcinogens.

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## SECTION IV – FIRST AID MEASURES

**Inhalation:** Remove to fresh air  
**Eyes:** Flush with water for fifteen (15) Minutes. Call physician.  
**Skin:** Wash thoroughly with soap and water.  
**Ingestion:** If patient is fully conscious, give large amounts of water. Obtain medical attention immediately.

Most Important Symptoms and effects, both acute and delayed

**Primary Routes of Entry into Body:** Fume inhalation, ingestion, skin, and eyes.

**Symptoms of Overexposure:** Salivation, coughing, choking, chills, may cause weight loss, brittle bones, anemia, and stiff joints.

**Medical Conditions Generally Aggravated by Exposure:** Any weakness of the lungs, kidneys or liver will be aggravated.

**Chemical Listed as Carcinogen or Potential Carcinogen:** None

**OSHA Permissible Exposure Limit (PEL):** NA

**ACGIH Threshold Limit Value (TLV):** NA

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## SECTION V - FIRE AND EXPLOSION HAZARD DATA

**Flash Point:** NA

**Flammable Limits:** NA

**Extinguishing Media:** Dry chemical, CO<sub>2</sub> foam

**Auto Ignition Temperature:** None

**Special Fire Fighting Procedures:** Normal cautions when dealing with chemicals.

**Unusual Fire and Explosion Hazards:** Will release small amounts of HCl upon decomposition

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## SECTION VI - ACCIDENTAL RELEASE MEASURES

**Steps to be Taken in Case Material is Spilled:** First neutralize with soda ash or sodium bicarbonate, dilute with water and dispose of in accordance with EPA regulations.

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## SECTION VII - HANDLING AND STORAGE

**Storage Requirements:** Store in plastic containers in cool area, away from heat.

**Handling Precautions:** Safe precautionary practices to avoid spills and exposure to skin and fumes.

**Other Precautions:** NA

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## SECTION VIII - CONTROL MEASURES

**Respiratory Protection (TYPE):** NIOSH approved respirator.

**Ventilation:** Yes

**Mechanical (General):** Explosion proof

**Local Exhaust:** Yes

**Protective Gloves:** Recommended, NIOSH approved

**Other Protective Clothing or Equipment:** Rubber apron is recommended.

**Eye Protection:** Safety Glasses

**Regulatory Information:** The chemical components are listed on TSCA and DSL inventory. See composition section ii for CAS numbers

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## SECTION IX - PHYSICAL AND CHEMICAL CHARACTERISTICS

**Boiling Point:** 107°C/225°F

**Specific Gravity (Water = 1):** 1.32

**Vapor Pressure (mm Hg):** <18 mm Hg @ 20°C

**Percent Volatile by Volume:** 73.5%

**Evaporation Rate (Butyl Acetate = 1):** <1

**Freezing Point:** <30°F

**Solubility in Water:** Unlimited

**pH:** 4 – 5 @ 20 - 25°C

**Appearance and Odor:** Red-colored liquid, no characteristic odor

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## SECTION X - STABILITY AND REACTIVITY

**Stability:** Product is stable (Conditions to Avoid): Metals

**Incompatibility:** Alkaline, strong oxidizing or reducing materials, cyanides or combustible materials.

**Hazardous Decomposition Products:** HCl, zinc chloride, zinc oxide, ammonium.

**Hazardous Polymerization:** Will not occur (Conditions to Avoid): Excessive heat or cold

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## SECTION XI - TOXICOLOGICAL INFORMATION

### Acute Toxicity Data

- 1) **Oral:** LD-50 (rat): Not available
- 2) **Inhalation:** LC-50 (rat): Not available
- 3) **Dermal:** LD-50 (rabbit): Not available
- 4) **Skin Irritation:** (rabbit): Not available

### Chronic Toxicity Data

- 1) **Repeated Skin Application:** (rat): Not available
  - 2) **Eye Irritation:** (rabbit): Not available
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## SECTION XII - ECOLOGICAL INFORMATION

**This material has not been tested for environmental effects.**

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## SECTION XIII - DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with EPA regulations

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## SECTION XIV- TRANSPORTATION

**D.O.T. Proper Shipping Name:** Zinc Chloride Solution (Contains Zinc Chloride)

**Hazard Class:** 8

**Identification Number:** UN1840

**Packing Group:** III

**Type D.O.T Label Required Information:** Corrosive

**Ground USA:** (1-gallon and smaller)

Classified as **ORM-D**. Refer to USA CFR 49 Regulations.

**Recommended Shipper be trained and certified.**

**Ground Canada:** (1-gallon and smaller)

Classified as **Consumer Commodity**.

**Refer to TDG regulations** (Canadian Transportation of Dangerous Goods regulations).

**Recommended Shipper be trained and certified.**

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## SECTION XV - REGULATORY INFORMATION

**OSHA Hazardous Chemical According to 29 CFR 1910.1200:** NA

**Carcinogenicity Classification: (Components Present at 0.1% or More)**

**International Agency for Research on Cancer (IARC):** NA

**American Conference of Governmental Industrial Hygienists (ACGIH):** NA

**National Toxicology Program (NTP):** NA

**Occupational Safety and Health Administration (OSHA):** NA

**All Components of this Product are Listed on the U.S. Toxic Substances Control Act Inventory or Otherwise Comply with TSCA Pre-manufacture Notification Requirements.**

**This product is RoHS compliant.**

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## SECTION XVI - OTHER INFORMATION

The labeling of this product is indicated in Section II. The full text of all abbreviations indicated by codes in the SDS are as follows:

R34	Causes burns
R36	Irritating to eyes
R37	Irritating to respiratory system
R38	Irritating to skin

S-18	Handle and open container with care
S-26	In case of eye contact, rinse thoroughly and get medical attention
S-27	Take off immediately contaminated clothing
S-36/37/39	Wear suitable protective clothing, gloves, and eye/face protection
S-45	In case of accident or if feel unwell call medical advice immediately
S61	Avoid release to the environment. Refer to special instructions/safety data sheet

- S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label where possible
- S64 If swallowed, rinse mouth with water (only if the person is conscious)
- P264 Wash ... thoroughly after handling
- P270 Do not eat, drink or smoke when using this product
- P273 Avoid release to the environment
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
- P330 Rinse mouth
- P337+P313 If eye irritation persists get medical advice/attention
- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P309+P311 IF exposed or you feel unwell: Call a POISON CENTER or doctor/physician
- H302 Harmful if swallowed
- H319 Causes serious eye irritation
- H401 Toxic to aquatic life
- H314 Causes severe skin burns and eye damage
- H335 May cause respiratory irritation
- H400 Very toxic to aquatic life

Further information:

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**END OF SAFETY DATA SHEET**

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