



MSDS

Material Safety Data Sheet

The Ruby Chemical Company
1601 Woodland Avenue
Columbus, Ohio 43219
(614) 252-9000

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: RUBYFLUID
Product Use: Soldering Flux

Company: The Ruby Chemical Company
Address: 1601 Woodland Avenue, Columbus, Ohio 43219-1135
Telephone Number: (614) 252-9000
Emergency Phone: (800) 424-9300 CHEMTREC
Issue Date: 13-Dec-04
Revision History: 13-Nov-00; 2-Feb-98

2. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT	CAS NO	PCT	TLV	CARCINOGEN?
ZINC CHLORIDE	7646-85-7	20 - 35%	1 STEL =2	No

Other data: THE INGREDIENT ZINC CHLORIDE IN THIS PRODUCT IS IDENTIFIED AS A LISTED CERCLA HAZARDOUS SUBSTANCE IN THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA TITLE III), AND APPEARS AT GREATER THAN DE MINIMUS CONCENTRATIONS. ZINC CHLORIDE HAS AN RQ (REPORTABLE QUANTITY) OF 5000#. ACCORDINGLY, RELEASES OF GREATER THAN 5000 # OF ZINC CHLORIDE MAY BE SUBJECT TO THE REPORTING REQUIREMENTS OF THIS REGULATION. REF: (40 CFR PART 302) IT IS ALSO A TOXIC CHEMICAL SUBJECT TO COMMUNITY RIGHT-TO-KNOW REPORTING PROVISIONS. (40 CFR PART 372)

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES: Corrosive! Exposure to this product will cause severe eye damage. Symptoms may include stinging, tearing, redness, and swelling. Blindness may result if not treated immediately.

SKIN CONTACT: Corrosive! Exposure to this product may cause severe skin damage and burns. Symptoms may include stinging, redness, swelling, and ulcerations.

INGESTION: Swallowing this product may cause severe irritation, discomfort, and damage in the mouth, throat, and digestive tract.

INHALATION: Inhaling this product may cause damage to the upper respiratory tract and lung tissue.

PRECAUTIONARY MEASURES

This product is intended for industrial use only. Keep out of the reach of children.

4. FIRST-AID MEASURES

SKIN: In case of contact, flush affected area with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical attention. Launder clothing before reuse.

EYES: In case of contact, immediately flush eyes with copious amounts of running water for at least 15 minutes. Occasionally lift upper and lower eyelids and hold apart. Obtain prompt medical attention.

INHALATION: If symptoms develop as a result of inhalation, immediately move affected person away from exposure and into fresh air. Seek medical attention immediately; keep person warm and quiet. If affected person is not breathing, begin artificial respiration. If person finds breathing difficult, administer oxygen.

INGESTION: If this product is swallowed, seek medical attention immediately. DO NOT induce vomiting, for doing so will cause further damage to the mouth and throat. If affected person is conscious and alert, immediately wash mouth with water and give water or milk to drink. If possible, do not leave affected person unattended.

5. FIRE-FIGHTING MEASURES

FLAMMABILITY PROPERTIES

FIRE AND EXPLOSION: No specific data available.

FLASHPOINT: Not Flammable.

LOWER FLAME LIMIT: None

UPPER FLAME LIMIT: None

EXTINGUISHING MEDIA

In case of fire, use carbon dioxide or dry chemical to extinguish small fires, and foam or water spray to extinguish large fires.

SPECIAL FIREFIGHTING INSTRUCTIONS

Wear self-contained breathing apparatus and protective clothing when fighting fires involving chemicals.

6. ACCIDENTAL RELEASE MEASURES / SPILL PROCEDURES

In the event of a small spill, flush spilled product to drain with excess water in accordance with all applicable regulations. Large spills of this product must be contained and picked up for proper disposal.

7. HANDLING AND STORAGE / DISPOSAL

Take all reasonable steps to prevent contact between this product and any part of the body. Store this product in a cool, dry place and ensure that there is adequate ventilation. Keep containers of this product closed when not in use. Do not allow this product to freeze.

Containers of this material may be hazardous when empty because emptied containers retain product residue. All precautions outlined in this material safety data sheet must be observed.

The user of this material has the responsibility to dispose of unused material, residues, and containers in compliance with all relevant federal, state, and local laws and regulations regarding treatment, storage, and disposal for hazardous and non-hazardous wastes.

8. PERSONAL PROTECTION

SKIN: Wear resistant gloves (consult your safety equipment supplier). To prevent skin contact, wear impervious clothing and boots.

EYES: Wear chemical splash goggles and face shield in accordance with OSHA regulations when working with this product.

RESPIRATORY: If workplace exposure limits of this product or any component are exceeded, an NIOSH/MSHA-approved respirator is recommended in absence of proper environmental control.

GENERAL: Local exhaust is preferred. Provide an eyewash fountain and safety shower in close proximity to points of potential exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Red-colored liquid

ODOR: No characteristic odor

SOLUBILITY IN WATER: Complete

pH: 1 - 2

FREEZING POINT: < 30 ° F

VAPOR DENSITY: > 1 (air = 1)

SPECIFIC GRAVITY: 1.26

VAPOR PRESSURE: < 18 mm Hg @ 20°C (77°F) (water)

BOILING POINT: 225 ° F

EVAPORATION RATE: < 1 (n-Butyl Acetate=1)

PERCENT VOLATILE: 73.5

10. STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY: Avoid contact between this product and cyanides (toxic HCN gas may result) and sulfide salts (H₂S may result).

DECOMPOSITION PRODUCTS: None known

11. OTHER INFORMATION

DISCLAIMER: The information accumulated herein is believed to be accurate but is not warranted to be as such, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is correct and suitable to their circumstances. (Signed) Philip J. Anderson, Technical Director