

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

Form Approved  
OMB No. 44-R1387

# MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## SECTION I

MANUFACTURER'S NAME <b>Ruby Chemical Company</b>		EMERGENCY TELEPHONE NO. <b>614-221-3055</b>
ADDRESS (Number, Street, City, State, and ZIP Code) <b>68-70 McDowell St. Columbus, Ohio 43215</b>		
CHEMICAL NAME AND SYNONYMS		TRADE NAME AND SYNONYMS <b>Rubyfluid Soldering Flux</b>
CHEMICAL FAMILY <b>Zinc Chloride -</b>	FORMULA <b>Proprietary Mixture</b>	

## SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS <b>Water</b>			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
<b>Boiling Point (F) 215°</b>				<b>Specific Gravity (H<sub>2</sub>O=1) 1.25</b>	
<b>Solution contains Zinc Chloride</b>				<b>22</b>	<b>mg-1cuM</b>
<b>Ammonium Chloride</b>				<b>tr</b>	
<b>Borax</b>				<b>tr</b>	

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	<b>215°</b>	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	<b>1.25</b>
VAPOR PRESSURE (mm Hg.)	<b>Unknown</b>	PERCENT VOLATILE BY VOLUME (%)	<b>70</b>
VAPOR DENSITY (AIR=1)	<b>1</b>	EVAPORATION RATE (ether=1)	<b>1</b>
SOLUBILITY IN WATER	<b>Complete</b>		
APPEARANCE AND ODOR	<b>- Red liquid, essentially odorless</b>		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	<b>None</b>	FLAMMABLE LIMITS	<b>Lei</b>	<b>Uei</b>
EXTINGUISHING MEDIA				
SPECIAL FIRE FIGHTING PROCEDURES				
UNUSUAL FIRE AND EXPLOSION HAZARDS				

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### SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	Unknown-Variable
EFFECTS OF OVEREXPOSURE	Local irritation externally May be fatal if swallowed.
EMERGENCY AND FIRST AID PROCEDURES	Flush skin or eyes with water. If swallowed, give plenty of water or milk, call physician.

### SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	##	
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS Hydrogen Chloride at soldering temperatures.			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	##	

### SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Flush liquid with water.
WASTE DISPOSAL METHOD	Dilute and flush

### SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)	Normal precaution	
VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES	rubber or plastic other	EYE PROTECTION splash protection
OTHER PROTECTIVE EQUIPMENT		

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Store away from excessive heat.
OTHER PRECAUTIONS	