

R & D METALS & CHEMICALS INC -- WELDING FLUX,SOLDERING LIQUID FORM FLUX --  
3439-01-044-4144

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Product Identification  
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Product ID:WELDING FLUX,SOLDERING LIQUID FORM FLUX

MSDS Date:02/20/1998

FSC:3439

NIIN:01-044-4144

MSDS Number: CGLTN

=== Responsible Party ===

Company Name:R & D METALS & CHEMICALS INC

Address:75 SHEER PLAZA

City:PLAINVIEW

State:NY

ZIP:11803-4205

Country:US

Info Phone Num:

516-694-0920

Emergency Phone Num:516-694-0920

CAGE:56406

=== Contractor Identification ===

Company Name:R & D METALS & CHEMICALS, INC

Address:201C PERIMETER PARK

Box:22533

City:KNOXVILLE

State:TN

ZIP:37922-2233

Country:US

Phone:423-531-6065 / FAX: 423-531-2044

CAGE:56406

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Composition/Information on Ingredients  
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Ingred Name:HYDROGEN CHLORIDE (HYDROCHLORIC ACID) (SARA 302/313)  
(CERCLA)

CAS:7647-01-0

RTECS #:MW4025000

Fraction by Wt: 30 - 45%

Other REC Limits:NONE

RECOMMENDED  
OSHA PEL:C 5 PPM  
ACGIH TLV:C 5 PPM; 9596  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:ZINC CHLORIDE (SARA 313) (CERCLA)  
CAS:7646-85-7  
RTECS #:ZH1400000  
Fraction by Wt: 15 - 25%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1MG/M3/2STEL(FUME)96  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:ACETIC ACID (CERCLA)  
CAS:64-19-7  
RTECS #:AF1225000  
Fraction by Wt: 2 - 4%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:10 PPM  
ACGIH TLV:10 PPM/15 STEL; 9596  
EPA Rpt  
Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

===== Hazards Identification =====

LD50 LC50 Mixture:LD50 (ORAL RAT) IS UNKNOWN.  
Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:TARGET ORGANS:EYES, SKIN, RESPIRATORY  
AND GASTROINTESTINAL TRACTS. ACUTE- CORROSIVE. ZINC CHLORIDE CAN  
BURN GASTROINTESTINAL TRACT IF INGESTED. MAY CAUSE BURNS IF EYE  
CONTACT OCCURS. MAY CAUSE EY  
E DAM GE. CAN CAUSE SKIN BURNS. MAY  
CAUSE PULMONARY EDEMA IF INHALED. CHRONIC- UNKNOWN.  
Explanation of Carcinogenicity:NONE  
Effects of Overexposure:IRRITATION, BURNS, PAIN, VOMITING, NAUSEA,  
BLINDNESS  
Medical Cond Aggravated by Exposure:UNKNOWN.

===== First Aid Measures =====

First Aid:CALL A DOCTOR IF SYMPTOMS PERSIST. EYE:IMMEDIATELY FLUSH WITH  
WATER FOR 15 MINUTES. HOLD EYELIDS OPEN. SEE A DOCTOR.  
SKIN:IMMEDIATELY WASH WITH PLENTY OF WAT

ER. INHALED:REMOVE TO FRESH AIR. PROVIDE CP R/OXYGEN IF NEEDED. ORAL:IF CONSCIOUS, DRINK WATER OR MILK. GET MEDICAL ATTENTION IMMEDIATELY.

===== Fire Fighting Measures =====

Flash Point:NONE

Extinguishing Media:USE CARBON DIOXIDE, FOAM OR DRY CHEMICAL. USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS.

Fire Fighting Procedures:WEAR PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS.

Unusual Fire/Explosion Hazard:WILL RELEASE HYDROCHLORIC ACID FUMES UPON DECOMPOSITION.

===== Accidental Release Measures =====

Spill Release Procedures:WEAR PROTECTIVE EQUIPMENT. NEUTRALIZE WITH SODA ASH OR SODIUM BICARBONATE. VENTILATE AREA. TRANSFER TO PROPER CONTAINER FOR DISPOSAL. WASH SPILL SITE WITH WATER.

Neutralizing Agent:SODIUM BICARBONATE, SODA ASH

===== Handling and Storage =====

Handling and Storage Precautions:KEEP AWAY FROM HEAT AND STORE IN

PLASTIC OR GLASS CONTAINERS, AWAY FROM INCOMPATIBLES.

Other Precautions:WASH THOROUGHLY AFTER HANDLING. KEEP OUT OF REACH OF CHILDREN. AVOID CONTACT WITH EYES AND SKIN. DO NOT BREATHE FUMES. WASH CLOTHING BEFORE RE-USE.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:NONE REQUIRED WHERE ADEQUATE VENTILATION CONDITIONS EXIST. IF AIRBORNE CONCENTRATION IS HIGH, WEAR A NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS.

Ventilation:USE

ADEQUATE GENERAL OR LOCAL EXHAUST VENTILATION.

Protective Gloves:RUBBER

Eye Protection:CHEMICAL SAFETY GOGGLES

Other Protective Equipment:EYE WASH STATION, SAFETY SHOWER, UNIFORM

Work Hygienic Practices:OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. WASH THOROUGHLY BEFORE EATING, DRINKING/SMOKING.

Supplemental Safety and Health

===== Physical/Chemical Properties =====

HCC:C1

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:B.P. Text:220F,104C

Melt/Freeze Pt:M.P/F.P Text:32.0F,0.0C

Vapor Pres:UNKNOWN.

Vapor Density:UNKNOWN.

Spec Gravity:1.34

pH:ACID

Evaporation Rate & Reference:0.7 (N-BUTYL ACETATE=1)

Solubility in Water:UNLIMITED

Appearance and Odor:YELLOW/GREEN LIQUID - PUNGENT ODOR

Percent Volatiles by Volume:64

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

ALKALIES, METALS, OXIDIZING OR REDUCING MATERIALS, CYANIDES OR  
COMBUSTIBLE MATERIALS

Stability Condit

ion to Avoid:EXCESSIVE HEAT AND COLD

Hazardous Decomposition Products:HYDROCHLORIC ACID, ZINC CHLORIDE  
FUMES, ZINC OXIDE

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND  
FEDERAL REGULATIONS. REUSING OR RECYCLING IS RECOMMENDED.

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