

RALRUBE INC. -- ALODINE 1201 -- 8030-00-823-8039

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Product Identification
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Product ID:ALODINE 1201
MSDS Date:08/16/1998
FSC:8030
NIIN:00-823-8039
MSDS Number: CLMFR
=== Responsible Party ===
Company Name:RALRUBE INC.
Address:36977 FOX GLEN
City:FARMINGTON HILLS
State:MI
ZIP:48331
Country:US
Info Phone Num:248-661-0260, FAX 248-661-3941
Emergency Phone Num:248-661-0260
Resp. Party Other M
SDS Num.:CODE: 235110
CAGE:6X798
=== Contractor Identification ===
Company Name:RALRUBE INC.
Address:36977 FOX GLEN
Box:City:FARMINGTON HILLS
State:MI
ZIP:48331
Country:US
Phone:248-661-0260, FAX 248-661-3941
CAGE:6X798

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Composition/Information on Ingredients
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Ingred Name:HYDROFLUORIC ACID
CAS:7664-39-3
RTECS #:MW7875000
< Wt:1.
OSHA PEL:C 3 PPM AS F
OSHA STEL:6 PPM
ACGIH TLV:C 3 PPM AS F
ACGIH STEL:C 2.6 MG/M3
EPA Rpt Qty:100 LBS
DOT Rpt Qty:100 LBS

Ingred Name

:CHROMIC ACID
CAS:7738-94-5
RTECS #:GB2450000
< Wt:1.
OSHA PEL:0.1 MG/M3
ACGIH TLV:0.05 MG/M3
EPA Rpt Qty:10 LBS
DOT Rpt Qty:10 LBS

Ingred Name:POTASSIUM FERRICYANIDE
CAS:13746-66-2
RTECS #:LJ8225000
< Wt:1.
OSHA PEL:NONE
OSHA STEL:NONE
ACGIH TLV:NONE
ACGIH STEL:NONE

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO
Health Hazards Acute and Chronic:EYES: C
ONTACT WITH EYES CAN CAUSE

SEVERE IRRITATION. SKIN CONTACT: CONTACT WITH SKIN CAN CAUSE IRRITATION. CONTACT WITH SKIN CAN CAUSE SEVERE BURNS WHICH MAY NOT BE IMMEDIATELY PAINFUL OR VISIBLE. S KIN ABSORPTION: CHROMIC ACID MAY BE ABSORBED THROUGH SKIN, ESPECIALLY IF SKIN IS DAMAGED. FATAL KIDNEY DAMAGE WAS REPORTED IN A PERSON WHO EVIDENTLY ABSORBED CHROMIUM TRIOXIDE INTO THE BODY. INGESTIO N: NO INFORMATION AVAILABLE. INHALATION: CAN CAUSE IRRITATION OF UPPER RESPIRAT ORY TRACT AND ULCERATION OF MUCOUS MEMBRANES.

Explanation of Carcinogenicity:CARCINOGEN - CONTAINS CHROMIC ACID. CHROMIUM VI AND IT'S COMPOUNDS: IARC GROUP 1, VOLUME 49, PAGE 49, 1990. NTP 9TH ANNUAL REPORT KNOWN TO BE HUMAN CARCINOGENS LIST.

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

First Aid:INGESTION: CONTACT A PHYSICIAN IMMEDIATELY . INHALATION: REMOVE TO FRESH AIR. SUPPORT BREATHING. CONTACT A PHYSICIAN IMMEDIATELY . EYE CONTACT: IMMEDIAT

ELY FLUSH EYES WITH POTABLE

WATER FOR A MINIMUM OF 15 MINUTES. CONTACT A PHYSICIAN . SKIN CONTACT: FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING. CONTACT A PHYSICIAN .

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

Extinguishing Media:AS REQUIRED TO EXTINGUISH SURROUNDING FIRE.

Fire Fighting Procedures:WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS (NIOSH APPROVED -) AND FULL PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard:PRESENTS NO HAZARD IN LIQUID FORM, HOWEVER CHEMICAL CONTAINS STRONG OXIDIZERS WHICH MAY SUPPLY OXYGEN WHEN DRY.

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

Spill Release Procedures:WEAR PROTECTIVE CLOTHING. ABSORB OR OTHERWISE COLLECT SPILL AND STORE IN POLYETHYLENE OR POLYETHYLENE-LINED STEEL CONTAINER.

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

Handling and Storage Precautions:DO NOT GET IN EYES , ON SKIN OR ON

CLOTHING. CLOTHING OR OTHER COMBUSTIBLE MATERIAL WET WITH THIS MATERIAL AND ALLOWED TO DRY MAY BECOME FLAMMABLE. WASH THOROUGHLY AFTER HANDLING. FOR INDUSTRIAL USE ONLY.

Other Precautions:EMERGENCY OVERVIEW: CONTACT CAN CAUSE SEVERE EYE IRRITATION. CAN CAUSE SKIN IRRITATION. CARCINOGEN - CONTAINS CHROMIC ACID.

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

Respiratory Protection:IF VAPORS OR MIST ARE GENERATED WEAR A NIOSH APPROVED RESPIRATOR.

Ventilation:USE WITH ADEQUATE VENTILATION. PROVIDE GENERAL AND LOCAL EXHAUST VENTILATION.

Protective Gloves:WEAR CHEMICAL RESISTANT GLOVES SUCH AS NEOPRENE, PVC, BUTYL RUBBER.

Eye Protection:(ANSI APPROVED -) CHEMICAL GOGGLES OR FACE SHEILD (& SAFETY GLASSES - FPN)

Other Protective Equipment:WEAR PROTECTIVE CLOTHING SUCH AS RUBBER APRONS, BOOTS AS NECESSARY TO AVOID SKIN CONTACT. EYE WASH FACILITY AND EMERGENCY SHOWER (MEETING ANSI DESIGN CRITERIA -) SHOULD BE I

N

CLOSE PROXIMITY.

Work Hygienic Practices:WASH HANDS AFTER HANDLING AND BEFORE EATING,
DRINKING, SMOKING OR USING TOILET. LAUNDER CONTAMINATED CLOTHES
BEFORE REUSE .

Supplemental Safety and Health

DO NOT GET IN EYES, ON SKIN OR ON CLOTHING.

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Physical/Chemical Properties
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Boiling Pt:=100.C, 212.F

Vapor Density:NOT APPLIC

Spec Gravity:1.0 - 1.1

pH:< 2

Evaporation Rate & Reference:NOT DETERMINED

Solubility in Water:COMPLETE

Appearance and Odo

r:AMBER LIQUID; NO ODOR.

Percent Volatiles by Volume:NOT APPLIC

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Stability and Reactivity Data
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Stability Indicator/Materials to Avoid:YES

KEEP SEPARATE FROM ALKALIES.

Stability Condition to Avoid:NONE.

Hazardous Decomposition Products:CONTAINS LESS THAN 1% POTASSIUM
FERRICYANIDE. WHEN HEATED TO DECOMPOSITION OR ON CONTACT WITH
STRONG ACIDS POTASSIUM FERRICYANIDE CAN EMIT FUMES OF CYANIDE.

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Toxicological Information
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Toxicological Information:CHROMIC ACID: ORAL RAT LD50: 80 MG/KG.

POTASSIUM FERRICYANIDE: ORAL RAT LDL0: 1600 MG/KG. HYDROFLUORIC
ACID: INHALATION LC50: 966 PPM/1 HR.

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Ecological Information
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Ecological:NO INFORMATION AVAILABLE.

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Disposal Considerations
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Waste Disposal Methods:THIS CHEMICAL CONTAINS CHROMIUM COMPOUNDS AND
FLUORIDE COMPOUNDS. WASTE TREATMENT AND NEUTRALIZATION MAY BE

REQUIRED PRIOR TO DISCHARGE TO A SEWER. DISPOSE OF IN COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

===== MSDS Transport Information =====

Transport Information: DOT SHIPPING NAME: NOT DOT REGULATED. CONTAINS
CLAUSE: N/A. UN / NA NUMBER: N/A. CLASS: N/A. PACKAGING
GROUP: N/A. PRODUCT RQ (LBS): N/A. RQ CLAUSE: N/A. NOTE: RQ
INFORMATION IS BASED ON A 55-GAL CONTAINER SIZE. PLEASE REFER TO
THE PRODUCT LABEL FOR
RQ ON OTHER SIZE CONTAINERS.

===== Regulatory Information =====

SARA Title III Information: SEC 302 EHS: HYDROFLUORIC ACID - YES,
CHROMIC ACID - NO, POTASSIUM FERRICYANIDE - NO. SEC 313 LIST:
HYDROFLUORIC ACID - YES, CHROMIC ACID - YES, POTASSIUM FERRICYANIDE
- NO.

Federal Regulatory Information: CERCLA LIST: HYDROFLUORIC ACID - YES,
CHROMIC ACID - YES, POTASSIUM FERRICYANIDE - NO. COMPONENTS OF
THIS PRODUCT ARE LISTED ON THE TSCA INVENT

ORY. EPA REACTIVE

HAZARD: NO. EPA SUDDEN RELEASE OF PRESSURE: NO. FIRE HAZARD:
NO. EPA IMMEDIATE HEALTH HAZARD: YES. EPA DELAYED HEALTH
HAZARD: YES.

State Regulatory Information: CALIFORNIA PROPOSITION 65: WARNING: THIS
PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO
CAUSE CANCER.

===== Other Information =====

Disclaimer (provided with this information by the compiling agencies):

This information is formulated
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