

R & D METALS AND CHEMICALS INC -- COPPER-PHOSPHORUS BRAZING ALLOYS --
3439-00-368-8536

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===== Product Identification =====

Product ID:COPPER-PHOSPHORUS BRAZING ALLOYS

MSDS Date:12/09/1997

FSC:3439

NIIN:00-368-8536

Status Code:A

MSDS Number: CKNSZ

=== Responsible Party ===

Company Name:R & D METALS AND CHEMICALS INC

Address:201C PERIMETER PARK

Box:22533

City:KNOXVILLE

State:TN

ZIP:37922

Country:U

S
Info Phone Num:423-531-6065/800-645-7476

Emergency Phone Num:800-645-7476

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 =====

Ingred Name:COPPER

CAS:7440-50-8

RTECS #:GL5325000

Minimum % Wt:91.05

Maximum % Wt:95.

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3

EPA R

pt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:PHOSPHORUS
CAS:7723-14-0
RTECS #:TH3495000
Minumum % Wt:5.
Maxumum % Wt:8.95
OSHA PEL:0.1 MG/M3
ACGIH TLV:0.1 MG/M3;0.02 PPM
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

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===== Hazards Identification =====
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LD50 LC50 Mixture:NO DATA PROVIDED BY RESPONSIBLE PARTY.
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:ACUTE: INHALATION: INHALATION OF THE
COMPONENTS AT HIGH CONCENTRATIONS OF
DUSTS/FUMES MAY CAUSE
RESPIRATORY TRACT IRRITATION AND/OR METAL FUME FEVER. SKIN: MAY
CAUSE IRRITATION, DISCOLORATION, &/OR CONTACT DERMATITIS. EYE:
CONTACT WITH THESE PRODUCTS IN FINELY-DIVIDED FORMS MAY CAUSE
IRRITATION, CONJUNCTIVITIS, &/OR ULCERATION OF THE CORNEA.
INGESTION: MAY CAUSE NAUSEA, VOMITING, & GASTROINTESTINAL
IRRITATION. CHRONIC: INGESTION: MAY CAUSE DAMAGE TO THE LIVER,
KIDNEYS, GASTROINTESTINAL SYSTEM, MUSCULOSKELETAL SYTEM, & NERVOUS
SYSTEM.

Explanation of Carcinogenicity:NONE OF THE COMPONENTS OF THIS
PRODUCT(S) ARE CLASSIFIED AS POTENTIAL OR DEMONSTRATED CARCINOGENS
BY IARC, NTP OR OSHA.

Effects of Overexposure:INHALATION: RESPIRATORY TRACT IRRITATION,
FEVER, MUSCLE ACHE, CHILLS, COUGH, WEAKNESS, METALLIC TASTE. SKIN:
MAY CAUSE IRRITATION, DISCOLORATION, &/OR CONTACT DERMATITIS. EYE:
IRRITATION, CONJUNCTIVITIS, &/OR ULCERATION OF THE CORNEA.
INGESTION: MAY CAUSE NAUSEA, VOMITING, & GASTROINTESTINAL
IRRITATION.

Medical Cond Aggravated by Exposure:PRE-EXISTING PULMONARY DISEASES MAY
BE AGGRAVATED BY INHALATION EXPOSURE, PARTICULARLY AS FUME.
CHRONIC EXPOSURE MAY AGGRAVATE PRE-EXISTING DISEASES OF LIVER,
KIDNEYS, GI TRACT, NERVOUS SYSTEM.

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===== First Aid Measures =====
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First Aid:INHALATION: IF SIGNS & SYMPTOMS OF TOXICITY ARE OBSERVED,
REMOVE SUBJECT FROM AREA, ADMINISTER OXYGEN, & SEEK MEDICAL
ATTENTION. KEEP THE SUBJECT WARM & AT R

EST. PERFORM ARTIFICIAL

RESPIRATION IF BREATHING HAS STOPPED. SKIN: REMOVE CONTAMINATED CLOTHING. WASH AFFECTED AREA WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ASSISTANCE IF NECESSARY. EYE: FLUSH AFFECTED AREA WITH WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ASSISTANCE IF NECESSARY. INGESTION: IF SUBJECT IS CONSCIOUS, INDUCE VOMITING. IF UNCONSCIOUS OR CONVULSIVE, SEEK IMMEDIATE MEDICAL ASSISTANCE.

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

Extinguishing Media:USE DRY CHEMICAL. DO NOT USE WATER.

Fire Fighting Procedures:IF FIGHTING A FIRE IN WHICH THESE PRODUCTS ARE PRESENT, WEAR A SELF CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE MODE

Unusual Fire/Explosion Hazard:IN FINELY-DIVIDED FORM, THESE PRODUCTS MAY IGNITE WHEN EXPOSED TO FLAME OR BY REACTION WITH INCOMPATIBLE MATERIALS. IF PRESENT IN A FIRE OR EXPLOSION, THEY MAY EMIT FUMES

OF COPPER OXIDE & PHOSPHORUS PENTOXIDE.

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

Spill Release Procedures:IF A FINELY-DIVIDED FORM OF PRODUCT IS SPILLED, CLEAN UP SPILLAGE SO AS TO MINIMIZE DISPERSION OF DUST.

WET SWEEPING OR VACUUMING USE HEPA FILTERATION ARE RECOMMENDED.

Neutralizing Agent:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

Handling and Storage Precautions:DO NOT STORE IN PROXIMITY TO INCOMPATIBLE MATERIALS.

Other Precautions:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

Respiratory Protection:IF EXPOSURE LEVEL EXCEEDS OSHA PEL(S) OR OTHER APPLICABLE STANDARD, USE A NIOSH-APPROVED RESPIRATOR HAVING A CONFIGURATION APPROPRIATE TO THE CONCENTRATION OF THE CONTAMINANT(S) GENERATED. FOR GUIDANCE ON SELECTION & USE OF RESPIRATORY PROTECTION, CONSULT AMERICAN NATIONAL STANDARD Z88.2 (ANSI, NEW

YOK, NY 10036 USA).

Ventilation:USE APPROPRIATE VENTILATION ADEQUATE TO MAINTAIN CONCENTRATIONS OF ALL COMPONENTS & THEIR DECOMPOSITION BYPRODUCTS TO WITHIN THEIR RESPECTIVE OSHA PELS.

Protective Gloves:WEAR APPROPRIATE PROTECTIVE GLOVES.

Eye Protection:PLASTIC-FRAME SPECTACLES WITH SIDE SHIELDS & FILTER LENS (SHADE #3 OR #4)

Other Protective Equipment:WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT SKIN INJURY. AVOID FLAMMABLE FABRICS.

Work Hygienic Practices:TO AVOID INGESTION, WASH HANDS & FACE BEFORE EATING, DRINKING, OR USING COSMETICS OR TOBACCO.

Supplemental Safety and Health
NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

HCC:N1

Melt/Freeze Pt:=710.C, #####F

Spec Gravity:8.01 TO 8.23

Solubility in Water:INSOLUBLE

Appearance and Odor:ODORLESS COPPER-YELLOW METALS OF WIRE,ROD,STRIP,POWDER OR PREFORMED SHAPES

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

Stability Indicator

Materials to Avoid:YES

AZIDES, NITRIC ACID, ETHANOL, ETHYLENE IMINE, MAGNESIUM, CHLORATES, CARBON DISULFIDE, BROMATES, INORGANIC & ORGANIC PEROXIDES, HALOGENS, CHLORINE TRIFLUORIDE, CHLORINE OXIDES, SELENIUM OXYCHLORIDE, SELENIUM OXYFLUORIDE, SELENIUM

Stability Condition to Avoid:STABLE AT ROOM TEMPERATURE COPPER CAN FORM AN UNSTABLE ACETYLIDE UPON CONTACT WITH ACETYLENE GAS.

Hazardous Decomposition Products:HEATING TO ELEVATED TEMPERATURES MAY LIBERATE COPPER OXIDE & PHOSPHORUS PENTOXIDE.

Conditions to Avoid Polymerization:HAZARDOUS POLYMERIZATION WILL NOT OCCUR

===== Toxicological Information =====

Toxicological Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.

===== Ecological Information =====

Ecological:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

Waste Disposal Methods:DISPOSE OF UNSUED OR UNSTABLE PRODUCT IN ACCORDANCE WITH

TH APPLICABLE FEDERAL, STATE/PROFINCIAL, & LOCAL REGULATIONS.

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

Transport Information:SHIPMENT NOT CONTROLLED BY USDOT/IATA/ICAO/IMO.

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

SARA Title III Information:SARA 313 SUPPLIER NOTIFICATION: THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-

TO-KNOW ACT (EPCR A) OF 1986 AND OF 40 CFR 372: CAS# 7440-50-8, COPPER, 91.05-95.0%; CAS# 7723-14-0, PHOSPHORUS, 5-8.95%.

Federal Regulatory Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.

State Regulatory Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

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