

RIO ALGOM INC VINCENT METALS DIV -- COPPER/COPPER ALLOYS -- 3439-01-097-2902  
===== Product Identification =====

Product ID:COPPER/COPPER ALLOYS

MSDS Date:11/28/1990

FSC:3439

NIIN:01-097-2902

MSDS Number: CDQNC

=== Responsible Party ===

Company Name:RIO ALGOM INC VINCENT METALS DIV

Address:700 24TH AVE SE

Box:360

City:MINNEAPOLIS

State:MN

ZIP:55440

Country:US

Info Phone Num:800-328-7800

Emergenc

y Phone Num:800-328-7800

CAGE:43049

=== Contractor Identification ===

Company Name:JO-BAR MFG (216-232-5555)

Box:UNKNOW

CAGE:15077

Company Name:RIO ALGOM INC VINCENT METALS DIV

Address:700 24TH AVE SE

Box:360

City:MINNEAPOLIS

State:MN

ZIP:55440

Country:US

Phone:800-328-7800

CAGE:43049

===== Composition/Information on Ingredients =====

Ingred Name:PRODUCT MAY INCLUDE SEVERAL OF FOLLOWING INGREDIENTS.NO INFO  
GIVEN ON ID OF SPECIFIC ALLOY.

RTECS #:9999999ZZ

Fraction by Wt: NA

O

ther REC Limits:NONE RECOMMENDED

Ingred Name:ALUMINUM (SARA 313)

CAS:7429-90-5

RTECS #:BD0330000

Other REC Limits:NONE RECOMMENDED

OSHA PEL:15 MG/M3 DUST

ACGIH TLV:10 MG/M3 DUST; 9596

Ingred Name:ANTIMONY (SARA 313) (CERCLA)

CAS:7440-36-0

RTECS #:CC4025000

Other REC Limits:NONE RECOMMENDED

OSHA PEL:0.5 MG/M3

ACGIH TLV:0.5 MG (SB)/M3; 9596

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

Ingred Name:ARSENIC (SARA 313) (CERCLA)

CAS:7440-38-2

RTECS #:CG0525000

Other REC Limits:NONE RECOMMENDED

OSHA PEL

:SEE 1910.1018

ACGIH TLV:0.01 MG/M3, A1; 9596

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Ingred Name:BERYLLIUM (SARA 313) (CERCLA)

CAS:7440-41-7

RTECS #:DS1750000

Other REC Limits:NONE RECOMMENDED

OSHA PEL:0.002 MG/M3, Z-2

ACGIH TLV:.002 MG/M3, A2; 9596

Ingred Name:CADMIUM (SARA 313) (CERCLA)

CAS:7440-43-9

RTECS #:EU9800000

Other REC Limits:NONE RECOMMENDED

OSHA PEL:0.2 MG/M3 DUST; Z-2

ACGIH TLV:0.01 MG/M3 DUST;9596

EPA Rpt Qty:10 LBS

DOT Rpt Qty:10 LBS

Ingred Name:CARBON BLACK

CAS:1333-86-4

RTECS #:F

F5800000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:3.5 MG/M3  
ACGIH TLV:3.5 MG/M3; 9596

Ingred Name:CHROMIUM (SARA 313) (CERCLA)  
CAS:7440-47-3  
RTECS #:GB4200000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:1 MG/M3  
ACGIH TLV:0.5 MG/M3; 9596  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:COBALT (SARA 313)  
CAS:7440-48-4  
RTECS #:GF8750000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.1 MG/M3  
ACGIH TLV:0.02 MG/M3; A3; 9596

Ingred Name:COPPER (SARA 313) (CERCLA)  
CAS:7440-50-8  
RTECS #:GL5325000  
Other RE  
C Limits:NONE RECOMMENDED  
OSHA PEL:0.1MG/M3 FUME/1 DUST  
ACGIH TLV:0.2 MG/M3 FUME; 9596  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:IRON OXIDE  
CAS:1309-37-1  
RTECS #:NO7400000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:10 MG/M3 (FE)  
ACGIH TLV:5MG(FE)/M3FUME,B2;96

Ingred Name:LEAD (SARA 313) (CERCLA)  
CAS:7439-92-1  
RTECS #:OF7525000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:SEE 1910.1025  
ACGIH TLV:0.05MG/M3, A3; 9596  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:MANGANESE (SARA 313)  
CA

S:7439-96-5  
RTECS #:OO9275000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:C, 5 MG/M3 (FUME)  
ACGIH TLV:0.2 MG/M3; 9596

Ingred Name:NICKEL (SARA 313) (CERCLA)  
CAS:7440-02-0  
RTECS #:QR5950000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3; 9596

Ingred Name:PHOSPHOROUS (YELLOW) (SARA 302/313) (CERCLA)  
CAS:7723-14-0  
RTECS #:TH3500000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.1 MG/M3  
ACGIH TLV:0.02 PPM; 9596  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:SILICON  
CAS:7440-21-3

RTECS #:VW0400000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:10 MG/M3 TDUST; 9596

Ingred Name:SILVER (SARA 313) (CERCLA)  
CAS:7440-22-4  
RTECS #:VW3500000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.01 MG/M3  
ACGIH TLV:0.1 MG/M3; 9596  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:SULFUR DIOXIDE (SARA 302)  
CAS:7446-09-5  
RTECS #:WS4550000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:5 PPM  
ACGIH TLV:2 PPM/5 STEL; 9596

Ingred Name:TELLURIUM (SARA 302)  
CAS:13494-80-9  
RTECS #:

WY2625000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.1 MG/M3  
ACGIH TLV:0.1 MG/M3; 9596

Ingred Name:TIN  
CAS:7440-31-5  
RTECS #:XP7320000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:2 MG/M3  
ACGIH TLV:2 MG/M3; 9596

Ingred Name:ZINC OXIDE (SARA 313) (CERCLA)  
CAS:1314-13-2  
RTECS #:ZH4810000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:10 MG/M3 TDUST; 9596

Ingred Name:ZIRCONIUM  
CAS:7440-67-7  
RTECS #:ZH7070000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:5 MG/M3  
ACGIH TLV:5 MG/M  
3/10 STEL;9596

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES  
Health Hazards Acute and Chronic:UNDER NORMAL HNDLG CONDITIONS SOLID  
ALLOY PRESENTS NO SIGN HEALTH HAZ.PROCESSING OF ALLOY BY DUST/FUME  
PRODUCING OPERATION MAY RESULT IN POT FOR EXPO TO AIRBORNE METAL  
PARTICULATES/FUME.

Explanation of Ca  
rcinogenicity:PER MSDS:ANTIMONY  
TIROXIDE,BERYLLIUM,CADMIUM,CRHOMIUM,COBALT-CR ALLOY,LEAD,NICKEL  
HAVE BEEN ID AS POT HUMAN CARCINOGENS.

Effects of Overexposure:LUNG DISEASES.IRRIT SKIN/MUC MEMB,SYST  
POIS,METALLIC TASTE,VOMIT,COLIC,LOSE APPET/WT,CARDIAC  
PROBLEMS,DIARR,DERM,INFLAMM.CHRONIC SYST DISEASE,GRANULOMATOUS  
LESIONS,LUNG DMG.RESP IRRIT,BRON,PNEUITIS,PU LM  
EDEMA,HEAD,DIZZ,LIV/KID/BONE MARR INJURIES.PULM SENS,CORRO  
EFFECT.DERM.METAL FUME FEVER,DISCOLOR,KERATINIZATI

ON,(SUP)

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:EYE:FLUSH WELL W/RUNNING WATER TO REMOVE PARTICULATE.GET MED ATTN.SKIN:VACUM OF EXCESS DUST.WASH WELL W/SOAP/WATER.INHAL:REMOVE TO FRESH AIR.GET MED ATTN.INGEST:SEEK MED ATTN IF LG QUANTITIES OF MATL HAVE BEEN INGESTED.

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

Autoignition Temp:Autoignition Temp Te

xt:NA

Lower Limits:NA

Upper Limits:NA

Extinguishing Media:USE SPECIAL MIXTURES OF DRY CHEMICAL OR SAND.

Fire Fighting Procedures:FIREFIGHTERS SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS & PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard:SOLID MASSIVE FORM IS NOT COMBUSTIBLE.FIRE/EXPLO HAZ ARE MODERATE WHEN MATL IF IN FORM OF DUST & EXPO TO HEAT/FLAMES/CHEM RX/CONTACT W/POWERFUL OXIDIZERS.

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

Spill Release Procedu

res:NO SPEC PRECAUT NECESSARY FOR BULK MATL

SPILL.LG DUST QUANT SPILL REMOVE BY VAC/WET SWEEP TO PREVENT HEAVY AIRBORNE DUST CONCEN.LIQ(ACIDS,BAES)CONTAINING SOLUBLIZE METAL,EVACUATE UNPROT PEOPLE.ABSORB LIQ W/VERMI/DRY SAND/SIMILAR MATL.FOLLOW DISPO REG

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:STORE MATL AWAY FROM INCOMPATIBLE MATLS.KEEP DUST FROM IGN SOURCES.

Ot

her Precautions:SEE ALL OTHER SECTIONS OF MSDS.

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

Respiratory Protection:IF EXPO ABOVE PEL/TLV NIOSH APPROVED RESP FOR FUME/DUST DEPENDENT UPON SOURCE OF AIRBORNE CONTAMIN.

Ventilation:VENTI/LOC EXHAU:REQUIRE IF DUST/FUME CREATED IN HNDLG/WORK ON MATL.MECHAN(GEN):AS ABOVE TO REDUCE AIRBONRE DUST/FUME LEV

Protective Gloves:REQUIRE FOR MELT,GRIND,CUT,WELD (SUPPLE)

Eye Protection:REQUIRE FOR MELT,GRIND,CUT,WELD (SUPPLE)

Oth

er Protective Equipment:AS REQUIRED FOR WORK DONE ON OR W/METAL.  
Work Hygienic Practices:AS REQUIRED FOR WORK DONE W/PB BEARING  
MATLS.MEET REQMTS OF OSHA PB STD WHERE NECESSARY.ALWAYS EVALUTE JOB  
DONE ON (SUP)  
Supplemental Safety and Health  
GLOVES:OPERATIONS.SELECT GLOVE APPROVED FOR SPEC OPERATION. EYE  
PROT:OPERATIONS.MIN REQMTS OF SAF GLASSES W/SIDE  
SHIELD.FACESHIELD/SPEC TINT GLASS FOR MELT/WELD.FACE SHIELD FOR  
GRIND. WORK HYG PRAC:PR OD IAW OSHA/RELEVANT STATE/FED/LOC STD  
S.  
SIGN/SYMP:SIDEROSIS.PB POIS.CNS/BLOOD INJURY.NI ITCH,SYS  
POI.STANNOSIS.

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

HCC:N1  
Boiling Pt:B.P. Text:NA  
Melt/Freeze Pt:M.P/F.P Text:1290F,699C  
Decomp Temp:Decomp Text:NP  
Vapor Pres:NA  
Vapor Density:NA  
Spec Gravity:7.45-9.00  
pH:NP  
Viscosity:NP  
Evaporation Rate & Reference:NA  
Solubility in Water:INSOLUBLE.  
Appearance and Odor:SOLID, SILVER OR YELLOW TO RED COLOR, ODOR-NONE.  
Percent Volatiles by Volume:NP  
Corrosion  
Rate:NP

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

Stability Indicator/Materials to Avoid:YES  
ACIDS,BASES,OXIDIZERS.  
Stability Condition to Avoid:MOLTEN METAL MAY REACT VIOLENTLY W/WATER.  
Hazardous Decomposition Products:METAL FUME.

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

Waste Disposal Methods:DISPOSE OF IAW FED/STATE/LOC REGS.CLEANUP  
PERSONNEL SHOULD WEAR RESPIRATORS/PROTECTIVE CLOTH.VENTI AREA OF  
RELEASES.MAY CONTAIN CHEM(S) SU

BJ TO REPORTING REQMTS OF SEC 313  
TITLE III OF SARA/40CFR372.

Disclaimer (provided with this information by the compiling agencies):  
This information is formulated for use by elements of the Department  
of Defense. The United States of America in no manner whatsoever,  
expressly or implied, warrants this information to be accurate and  
disclaims all liability for its use. Any person utilizing this  
document should seek competent professional advice to verify and  
assume responsibility f  
or the suitability of this information to their  
particular situation.