

MATERIAL SAFETY DATA SHEET

Company Name: C.R. LAURENCE CO., INC.
Address: 2503 E. VERNON AVE.
City / State / Zip: LOS ANGELES / CA / 90058
US-CHEMTREC Phone(I): (800)424-9300
US-CHEMTREC Phone(II): (703)527-3887
CAN-CANUTEC Phone: (613)996-6666
Vendor Update: 6/17/2009
Date Prepared: 6/17/2009
MSDS Number: 4410BA ; 4410BG ; 4410BL ; D1018A ; D1018DU ;
 D1019A ; D1019DU ; D1022A ; D1022DU ; D1023A ;
 D1023DU ; D1025A ; D1025DU ; D1026A ; D1026DU ;
 D1027A ; D1027DU ; D1028A ; D1028DU ; D1029A ;
 D1029DU ; D1030A ; D1030DU ; D1031A ; D1031DU ;
 D1032A ; D1032DU ; D1038A ; D1038DU ; D1039A ;
 D1039DU ; D1040A ; D1040DU ; D1041A ; D1041DU ;
 D1042A ; D1042DU ; D1043A ; D1043DU ; D122A ;
 D134 ; D150 ; D1600A ; D1603A ; D1603DU ; D1603GA
 ; D1605A ; D1605DU ; D1605GA ; D1606A ; D1606DU ;
 D1606GA ; D1609A ; D1609DU ; D1609GA ; D1611A ;
 D1611DU ; D1611GA ; D161312A ; D161312DU ;
 D161312GA ; D1623A ; D1623DU ; D1623GA ; D1624A
 ; D1624DU ; D1624GA ; D1626A ; D1626BA ;
 D1626BGA ; D1626DU ; D1626GA ; D1633A ;
 D1633DU ; D1633GA ; D1637M ; D1638A ; D1638DU ;
 D1638GA ; D1652A ; D1653A ; D1670A ; D1670DU ;
 D1670GA ; D1675A ; D1675DU ; D1675GA ; D1680A ;
 D1680BA ; D1680DU ; D1680GA ; D1684A ; D1684A16
 ; D1684A18 ; D1684A24 ; D1684BA16 ; D1684BA18 ;
 D1684BA24 ; D1950A ; D1950A16X20 ; D1950A16X22 ;
 D1950A16X24 ; D1950A18X24 ; D1950A18X30 ;
 D1950A18X36 ; D1950A24X24 ; D1950A24X30 ;
 D1950A24X36 ; D1950BA ; D1950BA16X20 ;
 D1950BA16X22 ; D1950BA16X24 ; D1950BA18X24 ;
 D1950BA18X30 ; D1950BA18X36 ; D1950BA24X24 ;
 D1950BA24X30 ; D1950BA24X36 ; D1950BGA ;
 D1950DU ; D1950GA ; D1971A ; D1971A60X20X20 ;
 D1971A60X24X18 ; D1971BA ; D1971DU ; D1971GA ;
 D1975A ; D1975A60X36X18 ; D1975DU ; D1975GA ;
 D1976A ; D1976A60X24X24 ; D1976DU ; D1976GA ;
 D1984A ; D1984BA ; D1984DU ; D1984GA ;
 D1990A3W ; D1990A4W ; D1990AC ; D1990ACR ;
 D1990AE ; D1993AC ; D1993ACR ; D1993AEL ;
 D1993AER ; D2203A36 ; D2203A48 ; D2203A60 ;
 D2203A72 ; D2203A8PK ; D2203DU8PK ; D2301A36 ;
 D2301A48 ; D2301A60 ; D2301A72 ; D28A ; D290A ;
 D290BA ; D290BBL ; D290BGA ; D290DU ; D290FBL ;
 D290GA ; D29A ; D3000A ; D3000FB ; D3001A ;
 D3001DU ; D3001FB ; D3001GA ; D3003A ; D3003BGA
 ; D3003DU ; D3003GA ; D3005A ; D3005BA ;
 D3005BGA ; D3005GA ; D3006A ; D3006DU ;
 D3006GA ; D3007A ; D3007FB ; D3007GA ; D3008A ;
 D3008FB ; D3008GA ; D3009A ; D3009FB ; D3009GA ;
 D3012A ; D3013A ; D3013DU ; D3013GA ; D3014A ;
 D3014BA ; D3014BGA ; D3014DU ; D3014FB ;
 D3014GA ; D3015A ; D3015BGA ; D3015DU ; D3015FB
 ; D3015GA ; D3021A ; D3021BA ; D3021BGA ;
 D3021DU ; D3021GA ; D3024A ; D3024BA ; D3024BGA
 ; D3024DU ; D3024GA ; D3025A ; D3025DU ; D3025GA
 ; D3030A ; D3030BA ; D3030BGA ; D3030DU ;
 D3030FBL ; D3030GA ; D3031A ; D3032A ; D3032FB ;
 D3040A ; D3040DU ; D3040GA ; D3050A ; D3050DU ;

D3050FB ; D3050GA ; D3060A ; D3065A ; D3100A ;
D3100GA ; D3101A ; D3101BA ; D3101BGA ; D3101DU
; D3101GA ; D3103A ; D3103BA ; D3103BGA ;
D3103DU ; D3103GA ; D3104A ; D3104BA ; D3104GA ;
D3106A ; D3106DU ; D3106GA ; D3112A ; D3112BA ;
D3112BGA ; D3112DU ; D3112GA ; D3115A ; D3117A ;
D3117GA ; D3118A ; D3118DU ; D3118GA ; D317A ;
D317BA ; D317BGA ; D317DU ; D317GA ; D318A ;
D318DU ; D318GA ; D3201A ; D3201BA ; D3201BGA ;
D3201DU ; D3201GA ; D3205A ; D3205GA ; D3208A ;
D320A ; D320DU ; D320GA ; D321A ; D321BA ;
D321BGA ; D321DU ; D321FBL ; D321GA ; D323A ;
D323BA ; D323BGA ; D323DU ; D323GA ; D3276A ;
D3276BA ; D3276BGA ; D3276DU ; D3276GA ; D3278A
; D3278BA ; D3278BGA ; D3278DU ; D3278GA ; D327A
; D327BA ; D327BGA ; D327DU ; D327GA ; D3280A ;
D3280BA ; D3280BGA ; D3280DU ; D3280GA ; D3282A
; D3282BA ; D3282BGA ; D3282DU ; D3282GA ; D331A
; D331FB ; D332A ; D332BL ; D332DU ; D332GA ;
D333A ; D333DU ; D333GA ; D334A ; D334BL ;
D334DU ; D334GA ; D336A ; D336BA ; D336BGA ;
D336DU ; D336GA ; D346BA ; D3A ; D3DU ; D3GA ;
D4000A ; D4000BA ; D4000BBL ; D4000BGA ;
D4000DU ; D4000FBL ; D4000GA ; D4030A ; D4030BA
; D4030BBL ; D4030BGA ; D4030DU ; D4030FBL ;
D4030GA ; D4040A ; D4040BA ; D4040BBL ;
D4040BGA ; D4040DU ; D4040FBL ; D4040GA ;
D4041A ; D4041BA ; D4041BBL ; D4041BGA ;
D4041DU ; D4041FBL ; D4041GA ; D4042A ; D4042BA
; D4042BBL ; D4042BGA ; D4042DU ; D4042FBL ;
D4042GA ; D4043A ; D4043BA ; D4043BBL ;
D4043BGA ; D4043DU ; D4043FBL ; D4043GA ; D40A ;
D40DU ; D40GA ; D41A ; D41DU ; D41GA ; D4350A ;
D4350DU ; D4350GA ; D4A ; D4DU ; D4GA ; D516A ;
D516BA ; D516BGA ; D52A ; D52DU ; D53ALH ;
D53ARH ; D53DULH ; D53DURH ; D5610A ; D5610BL
; D5610DU ; D5610GA ; D56A ; D57A ; D58A ; D58BA ;
D58BGA ; D590A ; D590DU ; D590GA ; D592A ;
D592BA ; D592BGA ; D592DU ; D592GA ; D593A ;
D593DU ; D593GA ; D594A ; D594DU ; D594GA ;
D600A ; D600BA ; D600BGA ; D600BL ; D600DU ;
D600GA ; D601A ; D601BA ; D601BGA ; D601BL ;
D601DU ; D601GA ; D602A ; D602BA ; D602BGA ;
D602BL ; D602DU ; D602GA ; D603A ; D603BA ;
D603BGA ; D603BL ; D603DU ; D603GA ; D604A ;
D604BA ; D604BGA ; D604BL ; D604DU ; D604GA ;
D605A ; D605DU ; D605GA ; D606A ; D606DU ;
D606GA ; D607A ; D607DU ; D607GA ; D608A ;
D608BA ; D608BGA ; D608BL ; D608DU ; D608GA ;
D609A ; D609BL ; D609DU ; D609GA ; D610A ;
D610BA ; D610BGA ; D610BL ; D610DU ; D610GA ;
D611A ; D611DU ; D611GA ; D613A ; D613BL ;
D613DU ; D613GA ; D614A ; D614DU ; D614GA ;
D615A ; D615DU ; D615GA ; D616A ; D616DU ;
D616GA ; D617A ; D617DU ; D617GA ; D618A ;
D618DU ; D618GA ; D621A ; D621BA ; D621BGA ;
D621DU ; D621GA ; D622A ; D622BA ; D622BGA ;
D622DU ; D622GA ; D623A ; D623DU ; D623GA ;
D625N ; D626A ; D626BA ; D626BGA ; D626DU ;
D626GA ; D6304A ; D6304DU ; D6304GA ; D6305A ;
D6305DU ; D6305GA ; D6306DU ; D6306GA ; D630A ;
D630BA ; D630BGA ; D630DU ; D630GA ; D631A ;

D631BA ; D631BGA ; D631DU ; D631GA ; D632A ;
D632DU ; D632GA ; D634A ; D634BA ; D634BGA ;
D634DU ; D634GA ; D637M ; D639A ; D639DU ;
D639GA ; D640A ; D640DU ; D640GA ; D643A ;
D643DU ; D644A ; D644BA ; D644DU ; D646A ;
D646BL ; D646DU ; D664A ; D664BA ; D664BGA ;
D664DU ; D664GA ; D665A ; D665DU ; D665GA ;
D667A ; D667DU ; D667GA ; D672A ; D672DU ;
D672GA ; D673A ; D673BA ; D673BGA ; D673DU ;
D673GA ; D687A ; D690A ; D691BA ; D691BGA ;
D691DU ; D691GA ; D693A ; D693BA ; D693BGA ;
D693DU ; D693GA ; D695A ; D695BA ; D695BGA ;
D695DU ; D695GA ; D697A ; D697BA ; D697BGA ;
D697DU ; D697GA ; D6A ; D6DU ; D6GA ; D7001A ;
D7001DU ; D7001GA ; D7002A ; D7003A ; D7003DU ;
D7003GA ; D7005A ; D7005DU ; D7005GA ; D7007A ;
D7008A ; D7008GA ; D7009A ; D7009DU ; D7012A ;
D7012GA ; D7014A ; D7014DU ; D7015A ; D7015DU ;
D7015GA ; D7016A ; D7016BA ; D7016BGA ; D7016DU
; D7016GA ; D7030A ; D7030BA ; D7030BBL ;
D7030BGA ; D7030DU ; D7030FBL ; D7030GA ;
D7050A ; D7050GA ; D70A ; D70BA ; D70DU ; D70GA
; D7117A ; D7117DU ; D7117GA ; D7118A ; D7118DU ;
D7118GA ; D7201A ; D7201BA ; D7201BGA ; D7201DU
; D7201GA ; D7A ; D7DU ; D7GA ; D805A ; D805DU ;
D805GA ; D812A ; D812DU ; D813A ; D813DU ;
D8203A ; D8203ABB ; D8203DU ; D8203DUBB ;
D8203GA ; D8203GABB ; D8204A ; D8204ABB ;
D8204DU ; D8204DUBB ; D8204GA ; D8204GABB ;
D8301A ; D8301ABB ; D8301DU ; D8301DUBB ;
D8301GA ; D8301GABB ; D8A ; D901GA ; D953BA ;
D953BGA ; D953BL ; D977A ; D977DU ; D977GA ;
D980A ; D980BA ; D980DU ; D980GA ; D990 ;
D990A123W ; D990A1245C ; D990A124W ; D990A12C ;
D990A12CR ; D990A12E ; D990A183W ; D990A1845C ;
D990A184W ; D990A18C ; D990A18CR ; D990A18E ;
D990A243W ; D990A2445C ; D990A244W ; D990A24C ;
D990A24CR ; D990A24E ; D990BA123W ;
D990BA124W ; D990BA12C ; D990BA12CR ;
D990BA12E ; D990BA183W ; D990BA184W ;
D990BA18C ; D990BA18CR ; D990BA18E ;
D990BA243W ; D990BA244W ; D990BA24C ;
D990BA24CR ; D990BA24E ; D990DU123W ;
D990DU124W ; D990DU12C ; D990DU12CR ;
D990DU12E ; D990DU183W ; D990DU1845C ;
D990DU184W ; D990DU18C ; D990DU18CR ;
D990DU18E ; D990DU243W ; D990DU2445C ;
D990DU244W ; D990DU24C ; D990DU24CR ;
D990DU24E ; D990GA123W ; D990GA124W ;
D990GA12C ; D990GA12CR ; D990GA12E ;
D990GA183W ; D990GA184W ; D990GA18C ;
D990GA18CR ; D990GA18E ; D990GA243W ;
D990GA244W ; D990GA24C ; D990GA24CR ;
D990GA24E ; D991 ; D991A ; D991BA ; D991BGA ;
D991DU ; D991GA ; D992 ; D992A ; D992BA ;
D992BGA ; D992DU ; D992GA ; D995A ; D995BA ;
D995BGA ; D995DU ; D995GA ; D996A ; D996BA ;
D996BGA ; D996DU ; D996GA ; D997A ; D997BA ;
D997BGA ; D997DU ; D997GA ; D998A ; D998BA ;
D998BGA ; D998DU ; D998GA ; D9A ; KK610A ;
KK610FB ; L250A ; L250A4 ; L250A6 ; L250BA ;
L250BBL ; L250BGA ; L250DU ; L250FBL ; L250GA ;

L251A ; L251A4 ; L251A5 ; L251BA ; L251BBL ;
 L251BGA ; L251DU ; L251FBL ; L251GA ; L251GA4 ;
 L251GA5 ; LK610A ; LK610BA ; LK610BGA ;
 LK610BL ; LK610DU ; LK610GA ; MC610A ;
 MC610BA ; MC610BGA ; MC610BL ; MC610DU ;
 MC610GA ;

I. CHEMICAL PRODUCT IDENTIFICATION

Product Name: ALUMINUM ALLOY
HMIS Ratings:
NFPA Ratings:

II. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Ingredient	C.A.S. Number	% By Weight	ACGIH TLV TWA/STEL	OSHA PEL TWA/STEL	Other TWA/STEL	LD50	LC50
ALUMINUM	7429-90-5	95.50 MIN.	5 MG/M ³ (FUME); 10 MG/M ³ (DUST)				
Notes							
SILICON	7440-21-3	0.8 MAX.	5 MG/M ³ (FUME); 10 MG/M ³ (DUST)				
Notes							
IRON	7439-89-6	0.70 MAX	5 MG/M ³ (FUME)				
Notes							
COPPER	7440-50-8	0.40 MAX	0.2 MG/M ³ (FUME); 1 MG/M ³ (DUST)				
Notes							
MAGNESIUM	7439-96-5	0.15 MAX	1 MG/M ³ (FUME)				
Notes							
MANGANESE	7439-95-4	1.2 MAX	10 MG/M ³ (FUME)				
Notes							
ZINC	7440-66-6	0.25 MAX	5 MG/M ³ (FUME); 10 MG/M ³ (DUST)				
Notes							
CHROMIUM	7440-47-3	0.35 MAX	.5 MG/M ³ (FUME)				
Notes							
Other:	CHROMIUM IN THESE ALLOYS DO NOT PRESENT A CARCINOGENIC OR OTHER HEALTH CONCERNS DUE TO EITHER THEIR LOW CONCENTRATIONS OR THE CHEMICAL FORM.						

III. HAZARDS IDENTIFICATION PRIMARY ROUTE OF ENTRY

Eyes: MAY IRRITATE EYES WHEN WELDING OR PLASMA CUTTING.

Skin: NOT LIKELY

Ingestion: NOT LIKELY

Inhalation: NOT LIKELY UNLESS THE MATERIAL IS MACHINED, WELDED OR REMELTED. SHORT TERM OVEREXPOSURE TO WELDING FUMES MAY RESULT IN DISCOMFORT SUCH AS DIZZINESS, NAUSEA, OR DRYNESS OR IRRITATION OF THE THROAT AND NOSE.

Medical Conditions**Aggravated by Exposure:****IV. FIRST AID MEASURES**

Eyes:	FOR EYE CONTACT, FLUSH WITH WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.
Skin:	FOR SKIN CONTACT, REMOVE PARTICLES BY THOROUGHLY WASHING WITH SOAP AND WATER.

V. FIRE FIGHTING MEASURES

Flash Point:	N/A
Lower Flammability Limit:	N/A
Upper Flammability Limit:	N/A
Extinguishing Agents:	THIS PRODUCT IS NON-FLAMMABLE. FOR FIRES INVOLVING ALUMINUM FINES OR CHIPS, USE DRY SAND OR CLASS D EXTINGUISHING AGENTS. DO NOT USE HALOGENATED EXTINGUISHING AGENTS.
Unusual Fire or Explosion Hazards:	MOLTEN ALUMINUM MAY EXPLODE UPON CONTACT WITH WATER. FINELY DIVIDED ALUMINUM MAY EXPLODE WHEN MIXED WITH HALOGEN ACIDS, HALOGENATED SOLVENTS, OR AMMONIUM NITRATE. FINELY DIVIDED ALUMINUM REACTS WITH HALOGEN ACIDS, WATER, AND SODIUM HYDROXIDE TO PRODUCE HYDROGEN GAS.

VI. ACCIDENTAL RELEASE MEASURES

Containment/Cleanup:	N/A
-----------------------------	-----

VII. HANDLING AND STORAGE**VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Other:	APPROPRIATE PERSONAL EQUIPMENT IS REQUIRED WHEN MELTING, CASTING, MACHINING, FORGING, OR OTHERWISE PROCESSING. THE NATURE OF THE PROCESSING ACTIVITY WILL DETERMINE WHAT FORM OF EQUIPMENT IS NECESSARY, I.E. GLASSES, RESPIRATOR, EAR PROTECTION AND/OR PROTECTIVE CLOTHING.
---------------	---

IX. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	SILVERY METALLIC
Boiling Point:	N/A
pH:	N/A
Solubility in Water:	NIL
Specific Gravity:	2.5 – 2.9
Vapor Pressure:	N/A
Physical State:	SOLID
Other:	EVAPORATION RATE: N/A

X. STABILITY AND REACTIVITY

Stability:	STABLE
-------------------	--------

Hazardous Polymerization: WILL NOT OCCUR.

Hazardous Decomposition Products: THE WELDING OF ALUMINUM ALLOYS MAY GENERATE CARBON MONOXIDE, CARBON DIOXIDE, OZONE, NITROGEN OXIDES, INFRA-RED AND ULTRA-RED RADIATION.

Incompatible Products: HALOGEN ACIDS AND SODIUM HYDROXIDE IN CONTACT WITH ALUMINUM MAY GENERATE EXPLOSIVE MIXTURES OF HYDROGEN. FINELY DIVIDED ALUMINUM WILL FORM EXPLOSIVE MIXTURES IN AIR IN THE PRESENCE OF BROMATES, IODATES, OR AMMONIUM NITRATE. WHEN REMELTING ALUMINUM SCRAP, ENTRAPPED MOISTURE OR THE PRESENCE OF STRONG OXIDIZERS SUCH AS AMMONIUM NITRATE COULD CAUSE AN EXPLOSION.

Conditions To Avoid: DO NOT TOUCH HEATED ALUMINUM PRODUCT WITHOUT KNOWING METAL TEMPERATURE. ALUMINUM EXPERIENCES NO COLOR CHANGE DURING HEATING. IF METAL IS HOT AND TOUCHED, BURNS CAN RESULT.

XI. TOXICOLOGICAL INFORMATION

XII. ECOLOGICAL INFORMATION

Ecotoxicity:

XIII. DISPOSAL CONSIDERATIONS

Disposal Method: USED OR UNUSED PRODUCT SHOULD BE TESTED TO DETERMINE HAZARD STATUS AND DISPOSAL REQUIREMENTS UNDER FEDERAL, STATE, OR LOCAL LAWS AND REGULATIONS.

XIV. TRANSPORT INFORMATION

Other: ALUMINUM POWDER MUST BE PACKAGED AND SHIPPED AS A FLAMMABLE SOLID.

XV. REGULATORY INFORMATION

Supplemental State

Compliance Information:

XVI. OTHER INFORMATION

WARRANTY INFORMATION

THIS INFORMATION IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.