



Material Safety Data Sheet

("Essentially Similar" to Form OSHA-174)

DATE PREPARED 04/01/99	REVISION DATE 09/01/04	MSDS # 02
---------------------------	---------------------------	--------------

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: Wise Alloys LLC
4805 Second Street
Muscle Shoals, AL 35661

TELEPHONE NUMBERS:
EMERGENCY: (256) 386-6203
NON-EMERGENCY: (256) 386-6822

PRODUCT CLASS: Aluminum Scrap
TRADE NAME: Aluminum Scrap, Unspecified

MANUFACTURER'S CODE IDENTIFICATION
1XXX thru 8XXX; 1XX.X thru 7XX.X series alloy scrap

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	Typical Percent	OSHA PEL			ACGIH TLV			CAS Numbers
		Gas ppm	Respirable Dust/Mist mg/m ³	Total Dust mg/m ³	Gas Ppm	Respirable Dust/Mist mg/m ³	Total Dust Mg/m ³	
Aluminum **	min 70.0		5	15		5	10	7429-90-5
Copper **	max 11.0		0.1	1		0.2	1	7440-50-8
Silicon	max 23.0		5	15			10	7440-21-3
Manganese **	max 1.8		5C*			1	5	7439-96-5
Magnesium	max 10.6		5	15		10		7439-95-4
Iron	max 2.0		10			5		7439-89-6
Zinc **	max 8.0		5	15		5	10	7440-66-6
Nickel **	max 3.0			1			0.05	7440-02-0
Chromium **	max 0.6			1			0.5	7440-47-3
Beryllium **	max 0.05			.002			.002	7440-41-7
Cobalt **	max 0.4		0.1	0.1		0.05	0.05	7440-48-4
(WHERE APPLICABLE) Oily scrap Painted scrap Thermoplastic or thermoset coatings * "C" indicates ceiling value ** On SARA Section 313 list.								

SECTION 3 – HAZARDS IDENTIFICATION

HMIS RATINGS: Health: 1
Flammability: 1
Reactivity: 1

SECTION 4 – FIRST AID MEASURES

SKIN: For minor burns, apply cold water. For severe burns, seek immediate medical attention.

EYE: Immediately flush with water for 15 minutes. Seek medical attention if irritation persists.

INHALATION: Remove to fresh air.

INGESTION: Does not represent a hazard.

SECTION 5 – FIRE FIGHTING MEASURES

FLAMMABILITY: YES? NO? X WHAT CONDITIONS? N/A

FLASH POINT (Method Used): N/A

UEL: N/A

LEL: N/A

MEANS OF EXTINCTION:

Castings, ingots, sheet, plate, forgings, wire, cable, extrusions, etc., are not combustible. For fires involving aluminum fines or chips, use dry sand or Class D extinguishing agents approved for this use. Do not use halogenated extinguishing agents

SPECIAL PROCEDURES:

Aluminum scrap suspected of containing closed containers should be shredded prior to melting. Aluminum scrap should be preheated before melting in order to drive off any moisture. If remelted, moisture present in cavities or on external surfaces may cause an explosion.

AUTO IGNITION TEMPERATURE: N/A

HAZARDOUS COMBUSTION PRODUCTS:

None known

SENSITIVITY TO IMPACT: None known

SENSITIVITY TO STATIC DISCHARGE:

None known

ND = NOT DETERMINED N/A = NOT APPLICABLE

SECTION 6 – ACCIDENTAL RELEASE MEASURES

If molten, contain the flow by using sand or alumina as a dam. Do not attempt to halt the flow of metal with shovels or handtools.
LEAK AND SPILL PROCEDURE: If remelted, see Aluminum Association publication #69 listed above.

SECTION 7 – HANDLING AND STORAGE

HANDLING PROCEDURES AND EQUIPMENT: See Aluminum Association publication #69 listed above.
STORAGE REQUIREMENTS: If remelted, make certain no water or moisture is present in cavities or on external surfaces.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

If ventilation is used to convey aluminum dust, generated by grinding, sawing, etc., special ventilation procedures may be necessary to avoid explosion hazards. See National Fire Protection Association codes #65 and #651 (See address in Section 5).

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES: As needed.

EYEWEAR: Safety glasses, goggles, face shield, or welding helmet, etc., as needed.

RESPIRATORY: Use NIOSH/MSHA-approved respirator for dusts/fume/mist, if TLVs or PELs are exceeded.

FOOTWEAR: Safety shoes, as needed.

CLOTHING: Appropriate welding protective equipment. If remelted, **see Aluminum Association publication "Guidelines for Handling Molten Aluminum", #69**. The Aluminum Association, 900 19th St., N.W., Suite 300, Washington, D.C. 20006.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A

FREEZING POINT: 461-653C

SPECIFIC GRAVITY: ND

SOLUBILITY IN WATER: Insoluble

VAPOR PRESSURE: N/A

PHYSICAL STATE: Solid

VAPOR DENSITY: N/A

pH: N/A

COEFFICIENT OF WATER/OIL DIST: N/A

EVAPORATION RATE: N/A

ODOR THRESHOLD: N/A

APPEARANCE/ODOR: Odorless, silvery gray color

SECTION 10 – CHEMICAL STABILITY AND REACTIVITY INFORMATION

CHEMICAL STABILITY: Stable

REACTIVITY AND UNDER WHAT CONDITIONS:

If remelted, moisture present in cavities or on external surfaces may cause an explosion. Bulk aluminum dust when damp may heat spontaneously.

INCOMPATIBILITY TO OTHER SUBSTANCES: YES

For aluminum fines: water, some acids, alkalis, and halogenated compounds. **See NFPA#491M** for specific incompatible materials. National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

HAZARDOUS DECOMPOSITION PRODUCTS:

For oily scrap: Carbon monoxide, carbon dioxide, and smoke.

For thermoplastic or thermoset coatings: Carbon monoxide, carbon dioxide, silicon dioxide, amines, smoke, and hydrogen chloride.

SECTION 11 – TOXICOLOGICAL INFORMATION

ROUTE(S) OF ENTRY:	INHALATION?	YES	INGESTION?	YES
	EYE CONTACT?	YES	SKIN ABSORPTION?	NO

EFFECTS OF ACUTE EXPOSURE:

Aluminum is considered a nuisance particulate. Welding or machining aluminum may generate dusts and fumes which may cause eye, nose, and throat irritation. Some welding operations on these alloys may liberate sufficient copper fume to exceed the exposure limit. Inhalation of excess copper fume may cause irritation of the respiratory tract and metal fume fever. Symptoms of metal fume fever include chills, fever, nausea, chest tightness, or metallic taste. Ozone may be emitted as a by-product during welding or plasma arc cutting. Exposure to ozone may produce irritation to eyes, nose, and throat. Welding and/or plasma arc cutting of aluminum alloys generates ultraviolet radiation which can cause skin burns or welders flash to unprotected skin and eyes. Some welding, remelting, and subsequent processing operations on certain beryllium alloys may liberate sufficient beryllium to exceed the exposure limit. Inhalation of beryllium in excess of the exposure limit may cause pneumonitis and berylliosis. Nickel and cobalt dust and fumes are respiratory irritants and may cause pneumonitis.

EFFECTS OF CHRONIC EXPOSURE:

Prolonged exposure to ozone may result in nausea, headache, and pulmonary damage. Exposure to nickel and cobalt dust may cause sensitization dermatitis. Chronic overexposure to cobalt dust and fume may result in polycythemia, hyperplasia of bone marrow and thyroid gland, pericardial effusion and damage to pancreas alpha cells. Chronic exposure to beryllium has been shown to cause lung cancer in experimental animals by the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP). Nickel, chromium, and certain of their compounds are classified as carcinogens in the latest Annual Report on Carcinogens as published by the National Toxicology Program (NTP) and by the International Agency for Research on Cancer (IARC).

LD50 OF PRODUCT:

Aluminum	-Not known
Copper	- orl-rat 3160mg/kg
Silicon	-orl-rat 3160mg/kg
Manganese	-orl-rat9000mg/kg
Magnesium	-Not known
Iron	-Not known
Nickel	-Not known
Chromium	-Not known
Zinc	-Not known

LC50 OF PRODUCT:

Aluminum	-Not known
Copper	-Not known
Silicon	-Not known
Manganese	-Not known
Magnesium	-Not known
Iron	-Not known
Nickel	-Not known
Chromium	-Not known
Zinc	-Not known

IRRITANCY OF PRODUCT: Mild

EXPOSURE LIMITS OF PRODUCT:
Use levels for specific ingredients shown in Section 2.

SENSITIZATION TO PRODUCT: Skin - Nickel and cobalt

SYNERGISTIC MATERIALS: None known

CARCINOGENICITY: NTP, IARC, ACGIH

REPRODUCTIVE EFFECTS: None known

TERATOGENICITY: None known

MUTAGENICITY: None known

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Pre-existing upper respiratory and lung diseases such as, but not limited to, Bronchitis, Emphysema, Asthma, and Wilson's Disease.

SECTION 12 – ECOLOGICAL INFORMATION

None available.

SECTION 13 – DISPOSAL INFORMATION

WASTE DISPOSAL:

For disposal of this material as a waste, act in accordance with all applicable federal, state, and local waste management regulations.

SECTION 14 – TRANSPORTATION INFORMATION

SPECIAL SHIPPING INFORMATION: None known

SECTION 15 – REGULATORY INFORMATION

SARA

This product contains a chemical or chemicals subject to the reporting requirements of **Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.**

REFRACTORY CERAMIC FIBERS

This material may contain small amounts of refractory ceramic fibers (RCF) as a contaminant. Exposure to the RCF, during handling or processing may result in irritation of the skin or upper respiratory tract. RCF subjected to 1800F or higher may partially convert to crystalline silica. The International Agency for Research on Cancer has classified RCF and crystalline silica as carcinogens.

SECTION 16 – OTHER INFORMATION

All statements, technical information and recommendations contained herein are based on tests and data which this Company believes to be currently reliable, but the accuracy or completeness thereof is not guaranteed and no warranty of any kind is made with respect thereto. This information is not intended as a license to operate under or a recommendation to practice or infringe any patent of this Company or others covering any process, composition of matter or use. Since the Company shall have no control of the use of the product described herein, the Company assumes no liability for loss or damage incurred from the proper or improper use of such product.