

**MATERIAL SAFETY DATA SHEET**

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SPEC/MSDS NUMBER
58410DATE
1/4/2011

(Review Date: 1/4/11)

PRODUCT IDENTIFICATION

TRADE NAME LINOTYPE SHOT FOR HYDROMETALS			GENERIC NAME LINOTYPE SHOT FOR HYDROMETALS	
MANUFACTURER'S NAME BELMONT METALS INC.			CAS NUMBER SEE BELOW	
ADDRESS (STREET) 330 BELMONT AVE.			PHONE NUMBER (EMERGENCY) 718-342-4900	
CITY BROOKLYN,	STATE NEW YORK	ZIP 11207	CHEMICAL STRUCTURE	

I • PRODUCT INGREDIENTS

CHEMICAL AND/OR COMMON NAME	CAS NUMBER	%	TLV mg/m ³	PEL mg/m ³
*ANTIMONY	7440-36-2	11.50	0.5	0.5
TIN	7440-31-5	4.25	2.0 INORGANICS EXCEPT AS OXIDES	2.0 INORGANICS EXCEPT AS OXIDES
*LEAD	7439-92-1	84.15	0.15	0.05
*ARSENIC	7440-38-2	15 MAX.	0.1	0.01

II • PHYSICAL DATA

PHYSICAL DATA				
BOILING POINT NOT APPLICABLE	VAPOR PRESSURE NOT APPLICABLE	MELTING POINT 463° F.		
SOLUBILITY IN WATER NOT APPLICABLE	VAPOR DENSITY (AIR=1) NOT APPLICABLE	PERCENT VOLATILE NOT APPLICABLE	EVAPORATION RATE (=1) NOT APPLICABLE	
APPEARANCE AND ODOR GRAY METALLIC – NO ODOR				

III • FIRE AND EXPLOSION DATA

FLASH POINT NOT APPLICABLE	FLAMMABLE LIMITS NOT APPLICABLE	LEL NOT APPLICABLE	UEL NOT APPLICABLE
EXTINGUISHING MEDIA SAND, DRY CHEMICAL, OR CO ₂ SHOULD BE USED ON SURROUNDING FIRE. DO NOT USE WATER ON FIRE WHERE MOLTEN METAL IS PRESENT.			
SPECIAL FIREFIGHTING PROCEDURES USE FULL BODY PROTECTIVE CLOTHING AND FULL FACE PIECE, SELF CONTAINED BREATHING APPARATUS OPERATED ON POSITIVE PRESSURE MODE.			
UNUSUAL FIRE OR EXPLOSION HAZARDS MOLTEN METALS PRODUCE FUME, VAPOR, AND OR DUST THAT MAY BE TOXIC AND/OR RESPIRATORY IRRITANTS. METAL REACTS WITH OXIDIZING AGENTS.			

IV • HEALTH HAZARD INFORMATION

HAZARD BY ROUTES OF EXPOSURE (Indicate chronic and acute)

INHALATION	VAPOR AND/OR FUME MAY BE IRRITATING TO THE RESPIRATORY SYSTEM AND CAN RESULT IN BOTH ACUTE AND CHRONIC OVEREXPOSURE.
INGESTION	DUST VAPOR AND/OR FUME MAY BE ABSORBED BY THE DIGESTIVE SYSTEM AND CAN RESULT IN BOTH ACUTE AND CHRONIC OVER EXPOSURE
EYE	DUST VAPOR AND/OR FUME MAY CAUSE IRRITATION
SKIN CONTACT/ABSORPTION	DUST VAPOR AND/OR FUME MAY CAUSE IRRITATION
SIGNS AND SYMPTOMS ASSOCIATED WITH EXPOSURE OVER TLV SEE ATTACHED	
MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED NOT APPLICABLE	
ANY PART LISTED AS CARCINOGENS (NTP, IARC, OSHA) SEE SECTION X	

HEALTH HAZARD INFORMATION CONTINUED ON PAGE 2

OVER HEATING OF ALLOY CAN PRODUCE METAL FUMES AND OXIDES. MACHINING OPERATIONS SUCH AS GRINDING, SAWING, BUFFING CAN GENERATE AIRBORNE PARTICULATE IN THE WORK AREA. THE EXPOSURE LEVELS INDICATED IN SECTION II ARE RELEVANT TO THESE AND OTHER OPERATIONS.

FOLLOWING ARE SYMPTOMS OF OVER EXPOSURE TO THE VARIOUS INGREDIENTS:

***ANTIMONY**

ANTIMONY AND ITS COMPOUNDS ARE IRRITATING TO THE SKIN AND MUCOUS MEMBRANES AND ARE SYSTEMIC POISONS. EFFECTS ARE REPORTED TO INCLUDE A METALLIC TASTE IN THE MOUTH, VOMITING, COLIC, LOSS OF APPETITE AND WEIGHT, AND DIARRHEA. IN ADDITION, DERMATITIS MAY RESULT WHICH STARTS AS INFLAMMATION OF THE HAIR FOLLICLES AND CAN PROGRESS THROUGH PUS FORMATION AND SLOUGHING TO LEAVE A CONTRACTED SCAR.

CHRONIC INHALATION OF ANTIMONY TRIOXIDE IS REPORTED TO PRODUCE A REDUCTION IN WHITE BLOOD CELLS AND DAMAGE TO THE LIVER. ANTIMONY AND ITS COMPOUNDS HAVE BEEN IDENTIFIED AS SUSPECTED CANCER-CAUSING AGENTS.

***ARSENIC**

ARSENIC IS A CUMULATIVE POISON WHICH IS DEPOSITED IN THE LIVER, KIDNEYS, HAIR AND NAILS. INHALED ARSENIC IS EXCRETED THROUGH THE KIDNEYS AND CAN BE DETECTED IN THE URINE HOURS TO YEARS AFTER EXPOSURE. SYMPTOMS OF PERSONS WHO HANDLE SOLID ARSENIC COMPOUNDS ARE HUSKY VOICE, COUGH, PERFORATION OF THE NASAL SEPTUM, ULCERATION OF THE SKIN, LOSS OF HAIR AND NAILS, WARTS AND SOMETIMES, SLOW, NON-MALIGNANT SKIN CANCERS.

***LEAD**

SHORT TERM EXPOSURE- LEAD IS AN ACCUMULATIVE POISON. INHALATION EFFECTS OF EXPOSURE TO FUMES OR DUST OF INORGANIC LEAD MAY NOT DEVELOP QUICKLY. SYMPTOMS MAY INCLUDE DECREASED PHYSICAL FITNESS, FATIGUE, SLEEP DISTURBANCE, HEADACHE, ACHING BONES AND MUSCLES, CONSTIPATION, ABDOMINAL PAINS, AND DECREASING APPETITE. THE EFFECTS ARE REVERSIBLE AND COMPLETE RECOVERY IS POSSIBLE. INHALATION OF LARGE AMOUNTS OF LEAD MAY LEAD TO SEIZURES, COMA, AND DEATH.

***LEAD**

LONG TERM EXPOSURE- LONG TERM EXPOSURE CAN RESULT IN BUILDUP OF LEAD IN THE BODY AND MORE SEVERE SYMPTOMS. THESE MAY INCLUDE ANEMIA, PALE SKIN, A BLUE LINE AT THE GUM MARGIN, DECREASED HANDGRIP STRENGTH, ABDOMINAL PAIN SEVERE CONSTIPATION, NAUSEA, VOMITING, AND PARALYSIS OF THE WRIST JOINT. PROLONGED EXPOSURE MAY ALSO RESULT IN KIDNEY DAMAGE. IF THE NERVOUS SYSTEM IS AFFECTED, USUALLY DUE TO VERY HIGH EXPOSURES, THE RESULTING EFFECTS INCLUDE SEVERE HEADACHE, CONVULSIONS, COMA, DELIRIUM, AND DEATH, ALCOHOL INGESTION AND PHYSICAL EXERTION MAY BRING ON SYMPTOMS. CONTINUED EXPOSURE CAN RESULT IN DECREASED FERTILITY AND/OR INCREASED CHANCES OF MISCARRIAGE OR BIRTH DEFECTS.

TIN

THE INHALATION OF INORGANIC TIN FUMES OR DUST MAY CAUSE AN APPARENT BENIGN PNEUMOCONIOSIS CALLED STANNOSIS, WHICH IS REPORTED NOT TO BE DISABLING.

XI SPECIAL INSTRUCTIONS FOR CHEMICALS MARKED WITH AN ASTERISK (*)

THOSE CHEMICALS MARKED WITH AN ASTERISK (*) ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENT AND REAUTHORIZATION ACT OF 1986 IN 40 CFR PART 372.

THIS INFORMATION IS TAKEN FROM SOURCES BELIEVED TO BE RELIABLE; HOWEVER, THE MANUFACTURER MAKES NO WARRANTY AS TO THE ABSOLUTE CORRECTNESS OR SUFFICIENCY OR ANY OF THE FOREGOING OR THAT ADDITIONAL OR OTHER MEASURES MAY BE REQUIRED UNDER PARTICULAR CONDITIONS.

EMERGENCY/FIRST AID PROCEDURES

INHALATION

REMOVE FROM EXPOSURE. GET MEDICAL ATTENTION

INGESTION

GET IMMEDIATE MEDICAL ATTENTION

EYE CONTACT

FLUSH WITH COPIOUS QUANTITIES OF WATER, GET MEDICAL ATTENTION IMMEDIATELY

SKIN CONTACT

WASH THOROUGHLY WITH SOAP AND WATER

SKIN ABSORPTION

NOT APPLICABLE

VI • CONDITIONS FOR SAFE USE (When over TLV)

RESPIRATORY PROTECTION

NIOSH/MSHA APPROVED RESPIRATOR FOR TOXIC DUST AND OR FUME

EYE PROTECTION

FACE SHIELD OR VENTED GOGGLES SHOULD BE WORN

PROTECTIVE GLOVES

GLOVES SHOULD BE WORN WHEN HANDLING THIS PRODUCT

OTHER PROTECTIVE CLOTHING/EQUIPMENT FULL PROTECTIVE CLOTHING (COVERALLS) SHOULD BE WORN DURING PRODUCT USE AND PROPERLY LAUNDERED AFTER USE

VENTILATION REQUIREMENTS

LOCAL VENTILATION RECOMMENDED – REQUIRED IF THRESHOLD LIMITS ARE EXCEEDED

VII • REACTIVITY DATA

IS MATERIAL STABLE?

YES

WILL HAZARDOUS POLYMERIZATION OCCUR

NO

INCOMPATIBILITY

STRONG OXIDIZERS MAY CAUSE A VIOLENT REACTION

CONDITIONS TO AVOID

NOT APPLICABLE

HAZARDOUS DECOMPOSITION PRODUCTS

AT TEMPERATURES ABOVE MELTING POINT TOXIC FUMES OR VAPORS MAY BE EMITTED

VIII • SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED MATERIAL SHOULD BE VACUUMED OR WET SWEEPED WHEN VACUUMING IS NOT FEASIBLE – PARTICULATE MATTER SHOULD BE STORED IN DRY CONTAINERS FOR LATER DISPOSAL. DO NOT USE COMPRESSED AIR AS A MEANS OF CLEANING.

WASTE DISPOSAL METHOD DISPOSE OF TOXIC SUBSTANCES AND HAZARDOUS WASTE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

RCRA REGULATED

NO

RCRA NUMBER

NOT APPLICABLE

CERCLA (Superfund) REPORTABLE QUANTITY

NOT APPLICABLE

DOT REGULATED

NO

DOT PROPER SHIPPING NAME

NOT APPLICABLE

DOT HAZARD CLASS

NOT APPLICABLE

DOT NUMBER

NOT APPLICABLE

IX • SPECIAL PRECAUTIONS

SPECIAL PRECAUTIONS FOR HANDLING AND STORAGE SIGNS & LABELS IN WORK AREAS AND FOR CONTAMINATED CONTAINERS OR EQUIPMENT MAY BE REQUIRED UNDER OSHA REGULATIONS. MEDICAL EXAMINATIONS, MONITORING, RECORD KEEPING AND HYGIENE FACILITIES AND PRACTICES SPECIFIED BY OSHA MAY HAVE TO BE MET. EMPLOYEE TRAINING PROGRAM MAY ALSO BE REQUIRED.

OTHER PRECAUTIONS PRACTICE GOOD HOUSEKEEPING & PERSONAL HYGIENE PROCEDURES. NO TOBACCO, OR FOOD IN WORK AREA. WASH THOROUGHLY BEFORE EATING OR SMOKING. AVOID INGESTION OR INHALATION. TAKE A SHOWER AND CHANGE CLOTHES AT END OF SHIFT. DO NOT WEAR CONTAMINATED CLOTHING HOME. DO NOT USE COMPRESSED AIR ON CLOTHING.

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TITLE

While the information and recommendations set forth herein are believed to be accurate as of the date hereof, THE MANUFACTURER MAKES NO WARRANTY WITH RESPECT THERETO, AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON