

BOW ELECTRONIC SOLDERS -- SOLU-CORE SOLDER TIN/LEAD/SILVER ALLOYS --  
3439-00-912-8698

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

Product ID:SOLU-CORE SOLDER TIN/LEAD/SILVER ALLOYS

MSDS Date:05/01/2000

FSC:3439

NIIN:00-912-8698

Status Code:A

MSDS Number: CKYVG

=== Responsible Party ===

Company Name:BOW ELECTRONIC SOLDERS

Address:1 CROSSMAN RD

City:SAYREVILLE

State:NJ

ZIP:08872

Country:US

Info Phone Num:732

-316-2100

Emergency Phone Num:800-535-5053 (INFOTRAC)

CAGE:3A822

=== Contractor Identification ===

Company Name:BOW ELECTRONIC SOLDERS (REPLACED BY CAGE 52329)

Address:1 CROSSMAN RD

Box:City:NEWARK

State:NJ

ZIP:07100

Country:US

Contract Num:SP0490-98-M-M844

CAGE:3A822

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

Ingred Name:TIN

CAS:7440-31-5

RTECS #:XP7320000

Minumum % Wt:0.

Maxumum % Wt:100.

OSHA PEL:2.0 MG/M3

ACGIH TLV:2 MG/M3

Ingred Name:LEAD

CAS:7439-92-1

RTECS #:

OF7525000  
Minumum % Wt:0.  
Maxumum % Wt:100.  
OSHA PEL:0.5 MG/M3  
ACGIH TLV:0.15 MG/M3  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:ANTIMONY  
CAS:7440-36-0  
RTECS #:CC4025000  
&lt; Wt:2.  
OSHA PEL:0.5 MG/M3  
ACGIH TLV:0.5 MG/M3  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:SILVER  
CAS:7440-22-4  
RTECS #:VW3500000  
&lt; Wt:5.  
OSHA PEL:0.01 MG/M3  
ACGIH TLV:0.1 MG/M3  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:MIXED AMINE SALTS  
Minumum % Wt:1.  
Maxumum % Wt:3.

=====  
tification =====

Health Hazards Acute and Chronic:ACUTE: LEAD MAY LEAD TO CENTRAL NERVOUS SYSTEM DISORDERS, CHARACTERIZED BY DROWSINESS, SEIZURES, COMA AND DEATH. EXPOSURES OF THIS MAGNITUDE IN AN INDUSTRIAL ENVIRONMENT ARE EXTREMELY UNLIKELY. CHRONI C: LEAD CAN RESULT IN SYSTEMIC POISONING WITH SYMPTOMS OF METALLIC TASTE, ANEMIA, INSOMNIA, WEAKNESS, CONSTIPATION, ABDOMINAL PAIN, GASTROINTESTINAL DISORDERS, JOINT AND MUSCLE PAIN AND MUSCULAR WEAKN ESS AN

D MAY

CAUSE DAMAGE TO BLOOD-FORMING, NERVOUS, KIDNEYS, AND REPRODUCTIVE SYSTEMS. DAMAGE MAY INCLUDE REDUCED FERTILITY IN BOTH MEN AND WOMEN, DAMAGE TO FETUS OF EXPOSED PREGNANT WOMEN, ANEMIA, MUSCULAR WEAKNESS AND KIDNEY DYSFUNCTION.

Explanation of Carcinogenicity:SPECIAL PRECAUTIONS, PROCEDURES, LABEL INSTRUCTION: SPECIAL ATTENTION IS DRAWN TO THE REQUIREMENTS OF THE OSHA LEAD STANDARD (1910.1025) AND RESPIRATOR STANDARD (1910.134) SHOULD AIRBORN EXPOSURES EXCEED THE OSHA ACTION LEVEL AND PEL.

Effects of Overexposure:DROWSINESS, SEIZURES, COMA ,AND DEATH, SYSTEMIC POISONING, METALLIC TASTE, ANEMIA, INSOMNIA, WEAKNESS, CONSTIPATION, ABDOMINAL PAIN, GASTROINTESTINAL DISORDERS, JOINT AND MUSCLE PAIN AND MUSCULAR WEAKNESS, DAMAGE TO BLOOD-FORMING, NERVOUS, KIDNEYS, AND REPRODUCTIVE SYSTEMS, REDUCED FERTILITY IN BOTH MEN AND WOMEN, DAMAGE TO FETUS OF EXPOSED PREGNANT WOMEN, ANEMIA, MUSCULAR WEAKNESS, AND KIDNEY DYSFUNCTION.

Medical Con

ditions Aggravated by Exposure:DISEASES OF THE BLOOD AND BLOOD FORMING ORGANS, KIDNEYS, NERVOUS AND POSSIBLY REPRODUCTIVE SYSTEMS.

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

First Aid:INHALATION: REMOVE FROM EXPOSURE AND CALL A PHYSICIAN. SKIN CONTACT: WASH AFFECTED AREAS WITH SOAP AND WATER. IF BURNS SHOULD OCCUR FROM MOLTEN METAL TREAT FOR BURN AND GET IMMEDIATE MEDICAL ASSISTANCE. EYE CONTACT: FLUSH EYES WITH WATER FOR 15 MINUTES, CALL A PHYSICIAN.  
INGESTION: INGEST LARGE QUANTITIES OF WATER, CALL A PHYSICIAN.

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

Flash Point:~204.4C, 400.F

METAL CORE

Extinguishing Media:USE CO2 OR DRY CHEMICAL ON SURROUNDING FIRE.

Fire Fighting Procedures:USE NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL BODY PROTECTIVE CLOTHING. DO NOT USE WATER ON FIRE WHERE MOLTEN METAL IS PRESENT.

Unusual Fire/Explosion Hazard:MOLTEN METALS PRODUCE FUME OR VAPOR THAT MAY

AY BE TOXIC AND/OR RESPIRATORY IRRITANTS. REACTS VIOLENTLY WITH  
OXYDIZING AGENTS.

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

Spill Release Procedures:ANY METHOD THAT KEEPS DUST TO A MINIMUM IS  
ACCEPTABLE. VACUUMING IS PREFERRED. USE OF APPROVED RESPIRATORY  
PROTECTION WHERE THE POSSIBILITY OF DUST/FUME EXPOSURE EXISTS. DO  
NOT USE COMPRESSED AIR FOR CLEANING.

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

Handling and Storage Precau

tions:NORMAL HANDLING: USE OF APPROVED

RESPIRATOR IS REQUIRED FOR APPLICATIONS WHERE ADEQUATE VENTILATION  
CANNOT BE PROVIDED. ACTIVITIES WHICH GENERATE DST OR FUME SHOULD BE  
AVOIDED. WHEN MELTED, THE TEMPER ATURE SHOULD BE KEPT AS LOW AS  
POSSIBLE. STORAGE: GENERAL STORAGE PROCEDURES ARE ACCEPTABLE.

Other Precautions:OVERHEATING OF ALLOY CAN PRODUCE METAL FUMES AND  
OXIDES. MACHINING OPERATIONS SUCH AS GRINDING, SAWING, OR BUFFING  
CAN GENERATE AIRBORN PARTICULATES IN THE WO

RK AREA. EXPOSURE LEVELS

INDICATED FOR ING REDIENTS ARE RELAVENT TO THESE AND OTHER  
OPERATIONS. SPECIAL ATTENTION IS DRAWN TO THE (CONTD. SEE "  
TOXICOLOGICAL")

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

Respiratory Protection:WHERE AIRBORNE EXPOSURES MAY EXCEED OSHA/ ACGIH  
PERMISSIBLE AIR CONCENTRATIONS, THE MINIMUM RESPIRATORY PROTECTION  
RECOMMENDED IS A NEGATIVE PRESSURE AIR PURIFYING RESPIRATOR WITH  
CARTRIDGES THAT ARE NIOSH/ MSHA APPROVED A

AGAINST DUST, FUMES, AND

MISTS HAVING A TWA NOT LESS THAN 0.05 MG/ M3.

Ventilation:LOCAL EXHAUST VENTILATION IS RECOMMENDED FOR DUST AND/OR  
FUME GENERATION OPERATIONS WHERE AIRBORN EXPOSURES MAY EXCEED  
PERMISSIBLE AIR CONCENTRATIONS.

Protective Gloves:GLOVES RECOMMENDED IF SKIN CONTACT IS APPRECIABLE.

Eye Protection:SAFETY GLASSES RECOMMENDED WHEN DUST PARTICLES AND  
HANDLING MOLTEN METAL EXISTS

Other Protective Equipment:PROTECTIVE CLOTHING RECOMMENDED IF SKIN  
CONTACT IS APPRE

CIABLE. A SHOWER IS RECOMMENDED IF SIGNIFICANT DUST  
EXPOSURE OCCURS.

Work Hygienic Practices:AVOID INHALATION OR INGESTION. PRACTICE GOOD  
HOUSEKEEPING AND PERSONAL HYGIENE PROCEDURES. SHOWER IS RECOMMENDED  
IF SIGNIFICANT DUST EXPOSURE OCCURS.

Supplemental Safety and Health

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

HCC:N1

Boiling Pt:>1300.C, 2372.F

Melt/Freeze Pt:=179.C, 354.2F

M.P/F.P Text:179C TO 312C (METAL)

Decomp Temp:Decomp Text:FLUX DECOMPOSES W/ HE

AT

Spec Gravity:7.3 TO 11.3 (METAL)

Solubility in Water:FLUX SOLUBLE.

Appearance and Odor:SOLID, SILVER-WHITE METAL, CORE HAS PLEASANT ODOR.

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

Stability Indicator/Materials to Avoid:YES

STRONG ACIDS, SULFUR, CHLRINE, BROMINE, IODINE, AND HALOGEN ACIDS.

STRONG OXIDIZERS MAY CAUSE VIOLENT REACTION.

Stability Condition to Avoid:OPEN FLAMES

Hazardous Decomposition Products:AT TEMPERATURES ABOVE THE MELTING

POINT, TOXIC FUMES

OR VAPORS MAY BE EMITTED.

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

Toxicological Information:(CONTD. FROM "OTHER PRECAUTIONS")

REQUIREMENTS OF THE OSHA LEAD STANDARD (1910.1025) AND RESPIRATOR

STANDARD (1910.134) SHOULD AIRBORNE EXPOSURES EXCEED THE OSHA

ACTION LEVEL AND PEL.

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

Ecological:(CONTD. FROM " WASTE DISPOSAL") RCRA STATUS OF UNUSED

MATERIAL: IF DISCARDED IN UNALTERED FORM,

MATERIAL SHOULD BE TESTED

TO DETERMINE IF IT MUST BE CLASSIFIED AS A HAZARDOUS WASTE FOR DISPOSAL PURPOSES. UNDER SPECIFIC CIRCUMSTANCES, APPLICATION CAN BE MADE TO THE EPA ADMINISTRATOR TO HAVE A PARTICULAR WASTE DESIGNATED NON-HAZARDOUS.

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

Waste Disposal Methods:DISPOSER MUST COMPLY WITH FEDERAL, STATE, AND LOCAL DISPOSAL OR DISCHARGE LAWS. IF HAZARDOUS UNDER 40 CFR 261, SUBPARTS B AND C, MATERIAL MUST BE TREATED OR DISPOSED IN A FACILITY MEETING REQUIREMENTS OF 40 CFR 254 OR 265. IF NON-HAZARDOUS, MATERIAL SHOULD BE DISPOSED IN A FACILITY MEETING THE REQUIREMENTS OF 40 CFR 257. (CONTD. SEE "ECOLOGICAL")

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

Transport Information:NOT REGULATED BY D.O.T.

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

SARA Title III Information:LISTED BY SARA III SECTION 313 CHEM.:

LEAD, CAS#, 7439-92-

1; ANTIMONY, CAS# 7440-36-0; SILVER, CAS#7440-22-4.

State Regulatory Information:PROPOSITION 65: WARNING: THIS PRODUCT CONTAINS LEAD, WHICH IS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

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

Disclaimer (provided with this information by the compiling agencies):

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