



Alpha-Fry Technologies
A COOKSON ELECTRONICS COMPANY

39883
Lo-Temp Solder

Alpha Metals
600 Route 440
Jersey City, New Jersey 07304
(201) 434-6778
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www.alphametals.com

Page 1 of 6
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MSDS ID: NC004

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TIN LEAD CORE SOLDER
RELIACORE/ENERGIZED/TELECORE/SMT/PLASTICORE
MANUFACTURER'S NAME: ALPHA METALS, INC
ADDRESS: 600 ROUTE 440
JERSEY CITY, NJ 07304
TRANSPORT EMERGENCY #: CHEMTREC: 1-800-424-9300
BUSINESS PHONE: 1-201-434-6778

2. INGREDIENT AND EXPOSURE LIMIT INFORMATION

CHEMICAL NAME	CAS #	% W/W	OSHA PEL - TWA
LEAD	7439-92-1	30 - 40	0.05mg/m3
TIN	7440-31-5	60 - 70	2.0 mg/m3
GUM ROSIN	8050-09-7	1 - 5	OSHA PEL - TWA

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: MODERATE EYE IRRITANT.
WILL NOT BURN
TOXIC BY INHALATION.
MODERATE GASTROINTESTINAL TRACT IRRITANT.
MODERATE RESPIRATORY TRACT IRRITANT.
CAUSES SKIN IRRITATION

HMS RATING SYSTEM:
Health: 2 ; Flammability: 1 ; Reactivity: 0 ; Protection: B

NFPA RATING SYSTEM:
Health: 2 ; Flammability: 1 ; Reactivity: 0

ROUTES OF ENTRY: INHALATION; INGESTION; SKIN CONTACT; EYE CONTACT;
ABSORPTION;

TARGET ORGANS: BLOOD; DIGESTIVE TRACT; KIDNEYS; NERVOUS SYSTEM; EYES;
SKIN.

MEDICAL CONDITIONS AGGRAVATED: DIGESTIVE TRACT DISEASE; KIDNEY DISEASE
EYE DISEASE. SKIN DISEASE INCLUDING ECZEMA
AND SENSITIZATION.

IMMEDIATE (ACUTE) SYMPTOMS OVER-EXPOSURE BY ROUTE OF EXPOSURE:
INHALATION: CAN CAUSE MODERATE RESPIRATORY IRRITATION, DIZZINESS,
WEAKNESS, FATIGUE, NAUSEA AND HEADACHE. MAY CAUSE AN
ALLERGIC REACTION. MAY CAUSE RESPIRATORY TRACT
SENSITIZATION, CHARACTERIZED BY ASTHMA-LIKE SYMPTOMS.

EYES: CAN CAUSE MODERATE IRRITATION, TEARING AND REDDENING, BUT
NOT LIKELY TO PERMANENTLY INJURE EYE TISSUE.

SKIN CONTACT: CAN CAUSE SLIGHT IRRITATION.

INGESTION: IRRITATING TO MOUTH, THROAT, AND STOMACH. CAN CAUSE



MATERIAL SAFETY DATA SHEET

3. HAZARDS IDENTIFICATION (Cont.)

ABDOMINAL DISCOMFORT, NAUSEA, VOMITING AND DIARRHEA.

LONG TERM (CHRONIC) HEALTH EFFECTS:

CARCINOGENICITY: NONE OF THE SUBSTANCES IN THIS PRODUCT ARE CONFIRMED AS HUMAN CARCINOGENS AT THIS TIME BY NTP, IARC, OR OSHA. IARC CLASSIFIES LEAD AND SOME LEAD COMPOUNDS AS 2B CARCINOGENS TO HUMANS). ACGIH LISTS AS LEAD AS A "A3, (ANIMAL CARCINOGEN WITH UNKNOWN RELEVANCE TO HUMANS).

REPRODUCTION: NO DATA AVAILABLE TO INDICATE PRODUCT OR ANY COMPONENTS PRESENT AT GREATER THAN 0.1% MAY CAUSE BIRTH DEFECTS. WOMEN OF CHILD BEARING AGE SHOULD AVOID EXPOSURE TO LEAD AND ITS INORGANIC COMPOUNDS DUE TO POST-NATAL EFFECTS.

MUTAGENICITY: NO DATA AVAILABLE TO INDICATE PRODUCT OR ANY COMPONENTS PRESENT AT GREATER THAN 0.1% IS MUTAGENIC OR GENOTOXIC.

4. FIRST AID MEASURES

SKIN EXPOSURE: WASH WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDRY. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.

EYE EXPOSURE: FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 20 MINUTES RETRACTING EYELIDS OFTEN. TILT THE HEAD TO PREVENT CHEMICAL FROM TRANSFERRING TO THE UNCONTAMINATED EYE. GET IMMEDIATE MEDICAL ATTENTION.

INHALATION: REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, HAVE A TRAINED INDIVIDUAL ADMINISTER OXYGEN. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION AND HAVE A TRAINED INDIVIDUAL ADMINISTER OXYGEN. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION: SEEK MEDICAL ATTENTION IMMEDIATELY.

NOTES TO DOCTOR: NO ADDITIONAL FIRST AID INFORMATION AVAILABLE

5. FIRE FIGHTING MEASURES

FLAMMABILITY SUMMARY: NOT COMBUSTIBLE

FLASH POINT: N/A

AUTOIGNITION TEMPERATURE: N/E

EXPLOSIVE LIMITS % IN AIR: N/E

EXTINGUISHING MEDIA: USE ALCOHOL RESISTANT FOAM, CARBON DIOXIDE, OR DRY CHEMICAL WHEN FIGHTING FIRES. WATER OR FOAM MAY CAUSE FROTHING IF LIQUID IS BURNING BUT IT STILL MAY BE USEFUL EXTINGUISHING AGENT IF CAREFULLY APPLIED TO THE SURFACE OF THE FIRE. DO NOT DIRECT A STREAM OF WATER INTO MOLTEN MATERIAL.

FIRE AND EXPLOSION METHODS: MATERIAL MAY BE IGNITED ONLY IF PREHEATED TO



Page 3 of 6
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5. FIRE FIGHTING MEASURES (Cont.)

TEMPERATURES ABOVE THE HIGH FLASH POINT, FOR
EXAMPLE IN A FIRE.

FIRE FIGHTING METHODS: WILL NOT BURN, NO SPECIAL INSTRUCTIONS
AVAILABLE. USE METHODS APPROPRIATE FOR
SURROUNDING MATERIALS.
HAZARDOUS COMBUSTION PRODUCTS: CARBON MONOXIDE; CARBON DIOXIDE; METAL FUMES;
TOXIC FUMES.

6. ACCIDENTAL RELEASE MEASURES

PRECAUTIONS AND EQUIPMENT: EXPOSURE TO THE SPILLED MATERIAL MAY BE IRRITATING
OR HARMFUL. FOLLOW PERSONAL PROTECTIVE EQUIPMENT
RECOMMENDATIONS FOUND IN SECTION VIII OF THIS
MSDS.
METHODS FOR CLEAN-UP: WEAR COMPLETE AND PROPER PERSONAL PROTECTIVE
EQUIPMENT FOLLOWING THE RECOMMENDATION OF SECTION
VIII GATHER AND STORE IN A SEALED CONTAINER
PENDING A WASTE DISPOSAL EVALUATION. DO NOT USE
BROOM OR AIR CLEANING ETC.

7. HANDLING AND STORAGE

HANDLING MEASURES: HARMFUL OR IRRITATING MATERIAL. AVOID CONTACTING AND AVOID
BREATHING THE MATERIAL. USE ONLY IN A WELL VENTILATED
AREA.
AS WITH ALL CHEMICALS, GOOD INDUSTRIAL HYGIENE PRACTICES
SHOULD BE FOLLOWED WHEN HANDLING THIS MATERIAL. AVOID
CONTACT WITH MATERIAL, AVOID BREATHING DUSTS OR FUMES, USE
ONLY IN A WELL VENTILATED AREA. WASH THOROUGHLY AFTER
HANDLING; WASH HANDS BEFORE EATING; DO NOT GET IN EYES,
ON SKIN AND CLOTHING.
STORAGE MEASURES: NO SPECIAL REQUIREMENTS
KEEP AWAY FROM FOOD AND DRINKING WATER. STORE IN A COOL
DRY PLACE.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING MEASURES: USE LOCAL EXHAUST VENTILATION OR OTHER ENGINEERING
CONTROLS TO MINIMIZE EXPOSURES AND MAINTAIN OPERATOR
COMFORT.
ENGINEERING CONTROLS MUST BE DESIGNED TO MEET THE
OSHA CHEMICAL SPECIFIC STANDARD IN 29 CFR 1910.
VENTILATION IS REQUIRED TO MAINTAIN OPERATOR EXPOSURE



Page 4 of 6
Revised 10/12/01
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MATERIAL SAFETY DATA SHEET

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION (Cont.)

BELOW PUBLISHED EXPOSURE LIMITS. USE PROCESS ENCLOSURES, LOCAL EXHAUST VENTILATION, OR OTHER ENGINEERING CONTROLS TO CONTROL AIRBORNE LEVELS BELOW RECOMMENDED EXPOSURE LIMITS; EXPLOSION PROOF EXHAUST VENTILATION SHOULD BE USED. FACILITIES STORING OR USING THIS MATERIAL SHOULD BE EQUIPPED WITH AN EYEWASH AND SAFETY SHOWER.

RESPIRATORY PROTECTION: RESPIRATORY PROTECTION MAY BE REQUIRED TO AVOID OVEREXPOSURE WHEN HANDLING THIS PRODUCT. GENERAL OR LOCAL EXHAUST VENTILATION IS THE PREFERRED MEANS OF PROTECTION. USE A RESPIRATOR IF GENERAL ROOM VENTILATION IS NOT AVAILABLE OR SUFFICIENT TO ELIMINATE SYMPTOMS. FOLLOW A RESPIRATORY PROTECTION PROGRAM THAT MEETS 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS WHENEVER WORK PLACE CONDITIONS WARRANT THE USE OF A RESPIRATOR. WEAR A NIOSH APPROVED RESPIRATOR IF ANY EXPOSURE IS POSSIBLE.

EYE PROTECTION: WEAR CHEMICALLY RESISTANT SAFETY GLASSES WITH SIDE SHIELDS WHEN HANDLING THIS PRODUCT. DO NOT WEAR CONTACT LENSES.

SKIN PROTECTION: WEAR GOGGLES AND A FACE SHIELD WEAR PROTECTIVE GLOVES. INSPECT GLOVES FOR CHEMICAL BREAK-THROUGH AND REPLACE AT REGULAR INTERVALS. CLEAN PROTECTIVE EQUIPMENT REGULARLY. WASH HANDS AND OTHER EXPOSED AREAS WITH MILD SOAP AND WATER BEFORE EATING, DRINKING, AND WHEN LEAVING WORK

CONTROL PARAMETERS: CHEMICAL NAME	-----ACGIH EXPOSURE LIMITS-----		
	TLV-TWA	STEL	CEILING
GUM ROSIN	SENSITIZER; REDUCE EXPOSURE TO AS LOW AS POSSIBLE.		
LEAD	0.05 mg/m3 TWA		
TIN	2 mg/m3 TWA		

9. PHYSICAL AND CHEMICAL PROPERTIES

COLOR: GREY
ODOR: NONE
pH: N/A



Page 5 of 6
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10. STABILITY AND REACTIVITY

DECOMPOSITION PRODUCTS: METAL FUMES; TOXIC FUMES.
INCOMPATIBLE MATERIALS: STRONG ACIDS; STRONG OXIDIZING AGENTS;
CONDITIONS TO AVOID: NONE KNOWN
CONTAMINATION: CONTACT WITH AIR. CONTACT WITH WATER

11. TOXICOLOGICAL INFORMATION

COMPONENT TOXICOLOGY DATA (NIOSH) LD50/LC50
CHEMICAL NAME

12. ECOLOGICAL INFORMATION

OVERVIEW: SLIGHT ECOLOGICAL HAZARD. IN HIGH CONCENTRATIONS, THIS PRODUCT MAY BE DANGEROUS TO PLANTS AND/OR WILDLIFE.

13. DISPOSAL CONSIDERATIONS

WASTE DESCRIPTION: SPENT OR DISCARDED MATERIAL IS PROBABLY A HAZARDOUS WASTE.
DISPOSAL METHODS: DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE, LOCAL, OR PROVINCIAL LAWS AND REGULATIONS.

14. TRANSPORT INFORMATION

SHIPPING BASIC DESCRIPTION: DOT & IATA: NOT RESTRICTED

15. REGULATORY INFORMATION

TSCA STATUS: ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY OF EXISTING CHEMICAL SUBSTANCES.

REGULATED CHEMICALS:

CHEMICAL NAME		REGULATION
LEAD	7439-92-1	SARA 313
LEAD	7439-92-1	CA PROP 65



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16. OTHER INFORMATION

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Additionally, Alpha Metals, Inc. assumes no responsibility for injury to the vendee or third persons proximately caused by the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.