Material Safety Data Sheet							
	SECTION	1-PRODU	CTION ID	ENTIFICA	TION AND L	JSE	
"44" ROSI	N FLUX CORE	D SOLDEF	र	MSDS Nu	umber: '	'44" Core	
Descriptior Solder Dis	n pensing Pack	Part Nur 5000-0	mber 0112	Date Prep	bared: I	November	4, 2002
Product Us	se: Solderir	ng flux in co	ored solde	r for electr	ical or electro	onic applic	ations.
Manufacture	rs Name and Ad	dress					
AUTOMAT 142 PECO MEDFORD	ED PRODUC NIC AVENUE), NY 11763	TION EQUI , SUITE F	PMENT C	ORPORA	TON		
Telephone Numb	per for information: (63	1) 654-1197	CHEM	ITREC 24-Hour	Emergency Telepho	one Number: (80	00) 424-9300
NFPA Rati HMIS Rati	NFPA RatingHealth 1Flammability 2Reactivity 0Special:HMIS RatingHealth 1Flammability 2Reactivity 0PersonalXProtection						
DOT:	Not Regulate	d					
WHMIS:	Class D, Divis	sion 2, Subo	division B.				
TDG:	Not Regulate	d					
	NA = Not Ap	plicable	NE = Not	Establishe	ed UN = Unk	nown	
	SE	CTION 2-H	IAZARDO		EDIENTS		
HAZARDOUS 1% or greater CARCINOGEN	INGREDIENTS:	C.A.S. Number	Weight Percent	OSHA PEL mg/m ³	ACGIH TLV TWA mg/m ³	LD 50 Ingested g/Kg	LC 50 Inhaled g/m ³
Lead		7439-92-1‡	•	0.05	0.15	NE	NE
Tin		7440-31-5	A	2	2	NE	NE
Silver		7440-22-4‡	A	0.01	0.1	NE	NE
Bismuth		7440-69-9		NE	NE	NE	NE
Antimony		7440-36-0‡	<u> </u>	0.5	0.5	7.0 Rat	NE
Rosin		8050-09-7	<3	NE	NE	NE	NE

NON-HAZARDOUS INGREDIENTS

Notes

‡ This Chemical is subject to the reporting requirements of Section 313 of Title III of the U.S.A. Superfund Amendment and Reauthorization act (SARA) of 1986 and 40 CFR part 372.

Composition and weight percent of solder alloys varies and can be determined by product label. Flux in core is typically 1-3% by weight.

SECTION 3-PHYSICAL DATA							
Physical State at 20°C:		Solid		Specifi	c Gravity (water = 1	at 26°C):	>1
Boiling Point (760 mm	Hg):	NA°F	NA°C	Melting	Point:	NA°F	NA°C
Vapor Pressure (mm H	lg at 20°C)	: NA E		Evaporation Rate (butyl acetate = 1):		NA	
Vapor Density (air = 1)	:	NA		Percent Volatile (by volume):		NA %	
Solubility in Water (% by weight):		0 V		Volatile Organic Compound (VOC):		NA g/Liter	
pH:		NA	VA Odor Threshold:			NE	
Freezing Point (760 mm Hg):		NE°F	NE°C	Coefficient of Water / Oil Distribution:		NE	
Appearance and Odor: Silver Gray Metal in wire, ribbon or preformed shapes with a core of flux, no odor.				or.			
ç	SECTION 4–FIRE AND EXPLOSION HAZARDS						
Flammability:	No X	Yes		Cond	litions to avoid:	NE	
Flash Point (T.O.C.):	NA°F	NA°C		Auto-	-Ignition Temperature:	NA°F	NA°C
Flammability Limits percent by volume in air			LEL:	NA	UEL:	NA	
Extinguishing Means: Water: Carbon Dioxide		:	Alcohol Foam:	Dry Che	micals:		

Hazardous Combustion Products:	Melted solder may liberate Carbon Monoxide, Carbon Dioxide, and lead
	oxide fumes.

Explosion Sensitivity:	Impact–None Identified.	Static Discharge Sensitivity:	Yes	No	Χ	ĺ
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Special Fire-Fighting Procedures: Wear self-contained breathing apparatus if this material is in the vicinity of a fire.

Unusual Fire and Explosion Hazards: Flux core solder may ignite when solder melts in a fire.

SECTION 5-REACTIVITY DATA					
Chemical Stability:	Stable X	Unstable	Conditions to avoid	None	
Incompatibility (materials	s to avoid):	Strong acids, S	trong oxidizers		

Hazardous Decomposition Products:

When heated to soldering temperatures, the solvent in the flux will boil away and carry up droplets of rosin and thermal degradation products such as aliphatic aldihydes, acids and terpenes. No lead is detected in fumes from soldering below 1000 $^{\circ}$ F (537 $^{\circ}$ C).

HAZARDOUS POLYMERIZATION

	May Occur	Conditions to avoid:	NE
Χ	Will Not Occur		

SECTION 6-HEALTH HAZARD DATA / TOXOLOGICAL PROPERTIES

EXPOSURE LIMITS: Not determined for the product. See Section 2 for ingredients.

Primary exposure during soldering is to evaporated solvent, which may contain droplets of rosin and / or other organic decomposition products.

PRIMARY ROUTES OF ENTRY:	X Eyes	5 X	Ingestion	X Inhalation		Skin
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TARGET ORGANS: Flux fumes: eyes, Skin, mucous membranes and respiratory system. Ingestion of lead metal can affect kidneys, gastrointestinal, reproductive, and neurological systems.

EFFECTS OF ACUTE (severe short-term) EXPOSURE:

INHALATION Flux fumes during soldering may cause irritation and damage of mucous membranes and respiratory system

SKIN CONTACT possible local irritation by contact with flux or fumes.

SKIN ABSORBTION None.

EYE CONTACT Irritation from contact with smoke from soldering.

INGESTION Not likely to occur.

EFFECTS OF CHRONIC (prolonged) EXPOSURE:

Breathing fumes during soldering may cause respiratory system irritation, headache and irritation of mucous membranes. Smoke during soldering will contain rosin, which is an allergen and can cause respiratory system irritation and damage. Repeated ingestion of lead can result in systematic poisoning.

Medical Conditions Generally Aggravated by Exposure:

Flux Pre-existing conditions of the lungs. Lead Diseases of the blood and flood forming organs, kidneys, nerves, and possibly reproductive system.

CARCINOGENICITY/ NTP

OSHA X IARC

Not Listed

See Section 9 for additional information.

SECTION 7-FIRST AID AND MEASURES				
Seek medical assistance for further treatment, observation and support if neededEYE CONTACTFor burns flush immediately with cool water. For fumes irritation use eye drops and remove from exposure.				
SKIN CONTACT	For burns flush immediately with cool water. If rash develops from flux fumes, remove person from exposure and was skin with soap and water.			
INHALATION	Remove person from exposure			
INGESTION	N/A			

SECTION 8-PREVENTATIVE MEASURES

PROCEDURES FROM MATERIAL CONTROL

Steps to be Taken if Material is Spilled or Released:

Melted solder will solidity on cooling and can be scraped up. Use caution to Avoid breathing fumes if a gas torch is used to cut up large pieces.

Precautions to be Taken in Handling and Storage:

Store away from sources of sulfur. Wash hands after handling solder containing lead before eating or smoking. Avoid breathing smoke / fumes generated during soldering. Do not place flux cored solder into a pot because the flux may ignite.

Waste Disposal Method:

Solder can be reclaimed.

CAUTION: Empty containers may contain product residue. Observe all label precautions.

PERSONAL PROTECTIVE EQUIPMENT:

VENTILATION TO BE USED:	Provide adequate exhaust ventilation (general and / or local) if
	necessary to meet exposure requirements. Local exhaust ventilation is preferred to minimize dispersion of smoke and fumes into work area.
Respiratory Protection	When ventilation is not sufficient to remove fumes from breathing zone a NIOSH approved respirator should be worn.
Protective Gloves: Usually not required	Eye Protection When soldering, use goggles or face shield.
Other Protective Clothing or Equipment:	None

Hygienic Work Practices:

Wash hands thoroughly after handling solder containing lead and before eating or smoking.

SECTION 9-ADDITIONAL INFORMATION

If the solder contains lead, these precautions are applicable.

This product contains lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm.

Lead and its components have been placed in class B2, probably carcinogenic to humans by USEPA. I.A.R.C. has placed lead and its components in class 2B, possibly carcinogenic to humans.

SECTION 10–PREPARATION INFORMATION

Date Prepared: Prepared By: A. Barren Nov. 04, 2002 Supersedes: Telephone Number: 631-654-1225 Oct. 15, 1995 Information contained herein is based on data considered accurate and is offered solely for information, consideration and investigation. Automated Production Equipment Corporation extends no warranties makes no representation and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchaser's use. The Data on this material Safety Data Sheet Relates only to this product and does not relate to use with any other material for any process. All chemical Products should be used only by or under the direction of technically gualified personnel who are aware of the hazards involved and the necessity for reasonable care in handling. Hazards communication regulations, U.S.A. Occupational Safety and Health Act (OSHA) and Canada Workplace Hazardous Materials Information Systems(WHMIS), requires that employees must be trained how to use a Material Safety Data Sheet as a source for Hazard Information.