Safety Data Sheet

Issue Date: 07-May-2006 **Revision Date:** 25-May-2015 **Version** 1

1. IDENTIFICATION

Product Identifier

Product Name Acro Soder Solder Paste with 50/50

Part Number: 5050ACROSOD1

UN/ID No UN1840

Recommended use of the chemical and restrictions on use

Recommended Use Solder Paste.

Details of the supplier of the safety data sheet

Supplier Address

Acro Sales & Engineering, Inc.
N57 W13366 Carmen Avenue
Menomonee Falls, WI 53051-6101

Emergency Telephone Number

Company Phone Number Phone: 262-781-8940
Fax: 262-781-8964

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Gray metallic paste **Physical State** Paste **Odor** Mild

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1 Sub-category C
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1B
Reproductive toxicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 2

Signal Word

Danger

Hazard Statements

Harmful if swallowed
Harmful in contact with skin
Causes severe skin burns and eye damage
May cause cancer
May damage fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response
Immediately call a poison center or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a poison center or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Immediately call a poison center or doctor/physician
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a poison center or doctor/physician
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth
Do not induce vomiting

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other Hazards
Very toxic to aquatic life with long lasting effects

Unknown Acute Toxicity
80% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Zinc chloride	7646-85-7	6
Tin	7440-31-5	40
Lead	7439-92-1	40
Ammonium chloride	12125-02-9	1
Water	7732-18-5	13

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
Skin Contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Call a poison center or doctor/physician if you feel unwell.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
Ingestion	IF SWALLOWED: call a poison control center or physician immediately. Rinse mouth. Do not induce vomiting.

Most important symptoms and effects

Symptoms	Causes severe skin burns and eye damage. Inhalation of fumes during soldering may cause pulmonary irritation, headache and irritation of mucous membranes. Prolonged of repeated skin contact may cause irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically. Exposure may aggravate pre-existing medical conditions or diseases of the blood and blood-forming organs, kidneys, nerves and possibly reproductive system.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Carbon dioxide (CO2). Dry chemical.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical
Not determined.

Hazardous Combustion Products Carbon monoxide. Carbon dioxide (CO2). Lead oxide fumes.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.
Environmental Precautions	See Section 12 for additional Ecological Information. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	Scoop up paste and deposit in appropriate containers. Clean up residual with isopropanol or detergent water. Dispose of contents/container to an approved waste disposal plant.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling. Care should be taken to remove solder paste from under fingernails.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Store at or near 70°F (21DEGC).

Incompatible Materials Strong acids. Strong oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Zinc chloride 7646-85-7	STEL: 2 mg/m^3 fume TWA: 1 mg/m^3 fume	TWA: 1 mg/m^3 fume (vacated) TWA: 1 mg/m^3 fume (vacated) STEL: 2 mg/m^3 fume	IDLH: 50 mg/m^3 fume TWA: 1 mg/m^3 fume STEL: 2 mg/m^3 fume
Lead 7439-92-1	TWA: 0.05 mg/m^3 Pb	TWA: 50 µg/m^3 Pb	IDLH: 100 mg/m^3 Pb TWA: 0.050 mg/m^3 Pb
Tin 7440-31-5	TWA: 2 mg/m^3 Sn except Tin hydride	TWA: 2 mg/m^3 Sn except oxides (vacated) TWA: 2 mg/m^3 Sn except oxides	IDLH: 100 mg/m^3 Sn TWA: 2 mg/m^3 except Tin oxides Sn
Ammonium chloride 12125-02-9	STEL: 20 mg/m^3 fume TWA: 10 mg/m^3 fume	(vacated) TWA: 10 mg/m^3 fume (vacated) STEL: 20 mg/m^3 fume	TWA: 10 mg/m^3 fume STEL: 20 mg/m^3 fume

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Showers. Eyewash stations. Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses especially during soldering.

Skin and Body Protection Plastic or rubber gloves where necessary to avoid skin contact.

Respiratory Protection Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Paste		
Appearance	Gray metallic paste	**Odor**	Mild
Color	Gray metallis	**Odor Threshold**	Not determined

Property	**Values**	**Remarks • Method**
pH	Not determined	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	Not determined	
Flash Point	> 232 °C / 449 °F	
Evaporation Rate	<0.1	TOC
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	>1	(Water = 1) @ 24°C/75°F
Water Solubility	<5%	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
Additional Information	Volatile by volume 9%	
VOC Content	70 g/L	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid
Keep out of reach of children.

Incompatible Materials
Strong acids. Strong oxidizers.

Hazardous Decomposition Products
When heated to soldering temperatures, the solvents are evaporated and thermal degradation products may include aliphatic aldehydes and acids. No lead is detected in fumes from soldering below 1000°F (537°C).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns. Harmful in contact with skin.

Inhalation Do not inhale. Avoid breathing vapors or mists

Ingestion Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Zinc chloride 7646-85-7	= 350 mg/kg (Rat)	-	-
Tin 7440-31-5	= 700 mg/kg (Rat)	-	-
Ammonium chloride 12125-02-9	= 1410mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
Lead 7439-92-1	A3	Group 2A	Reasonably Anticipated	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2A - Probably Carcinogenic to Humans
NTP (National Toxicology Program)
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity May damage fertility or the unborn child.

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Numerical measures of toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Lead 7439-92-1		0.44: 96 h Cyprinus carpio mg/L LC50 semi-static 1.17: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 1.32: 96 h Oncorhynchus mykiss mg/L LC50 static		600: 48 h water flea µg/L EC50
Ammonium chloride 12125-02-9		209: 96 h Cyprinus carpio mg/L LC50 static 725: 24 h Lepomis macrochirus mg/L LC50		202: 24 h Daphnia magna mg/L LC50

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility
Not determined

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Lead 7439-92-1		Included in waste streams: F035, F037, F038, F039, K002, K003, K005, K046, K048, K049, K051, K052, K061, K062, K069, K086, K100, K176	5.0 mg/L regulatory level	

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Zinc chloride 7646-85-7	Toxic
Lead 7439-92-1	Toxic

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. This material **qualifies** to be shipped as a limited quantity

DOT

UN/ID No	UN2331
Proper Shipping Name	Zinc chloride, anhydrous
Hazard Class	8
Packing Group	III

IATA

UN/ID No	UN2331
Proper Shipping Name	Zinc chloride, anhydrous
Hazard Class	8
Packing Group	III

IMDG

UN/ID No	UN2331
Proper Shipping Name	Zinc chloride, anhydrous
Hazard Class	8
Packing Group	III
Marine Pollutant	This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Zinc chloride	Present	X		Present		Present	X	Present	X	X
Tin	Present	X		Present			X	Present	X	X
Lead	Present	X		Present		Present	X	Present	X	X
Ammonium chloride	Present	X		Present		Present	X	Present	X	X

Legend:

TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*

DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

EINECS/ELINCS *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

ENCS *- Japan Existing and New Chemical Substances*

IECSC *- China Inventory of Existing Chemical Substances*

KECL *- Korean Existing and Evaluated Chemical Substances*

PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

AICS *- Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Zinc chloride 7646-85-7	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Lead 7439-92-1	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ
Ammonium chloride 12125-02-9	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Zinc chloride - 7646-85-7	7646-85-7	40-45	1.0
Lead - 7439-92-1	7439-92-1	20-25	0.1
Ammonium chloride - 12125-02-9	12125-02-9	1-5	1.0

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc chloride	1000 lb	X		X
Lead		X	X	
Ammonium chloride	5000 lb			X

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Lead - 7439-92-1	Carcinogen Developmental Female Reproductive Male Reproductive

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Zinc chloride 7646-85-7	X	X	X
Lead 7439-92-1	X	X	X
Tin 7440-31-5	X	X	X
Ammonium chloride 12125-02-9	X	X	X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	2	1	0	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	2	1	0	X

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet