

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Code 47147303
Trade Name SOLDERON LEAD CONCENTRATE
Manufacturer/Supplier Shipley Company
Address 455 Forest St.
Marlborough, Massachusetts 01752
Phone Number (508) 481-7950
Emergency Phone Number (508) 481-7950
Chemtec # (800) 424-9300
MSDS first issued 19 October 1999
MSDS data revised
Prepared By: Environmental, Health & Safety Department
Local Sales Company Shipley Company, 455 Forest Street, Marlboro, MA 01752
(508-481-7950)

2. COMPOSITION/INFORMATION ON THE INGREDIENTS

Components without CAS numbers are Trade Secret

Table with 3 columns: Component Name, CAS# / Codes, Concentration. Rows include Sulfonic acid, water, and Lead Compound.

3. HAZARD IDENTIFICATION

Main Hazards - Corrosive - Blood - Reproductive System - Carcinogen - Kidney - Nervous System - Respiratory System - Skin - Eye
Routes of Entry Inhalation, ingestion, eye and skin contact, absorption.
Carcinogenic Status Listed as carcinogenic by NTP and IARC.
Target Organs - Eye - Skin - Nervous System - Respiratory System - Reproductive System - Kidney - Blood
Health Effects - Eyes Liquid, mist or vapor will cause severe conjunctival irritation, corneal damage, and may result in loss of vision.
Health Effects - Skin Material will cause chemical burns. Effects may be delayed.
Health Effects - Ingestion Abnormal conditions such as prolonged contact or absorption through burns or open wounds may have the following effects: - dermatitis - systemic effects similar to those resulting from ingestion
Swallowing may have the following effects:
- corrosion of mouth, throat and digestive tract - headache - flushing - dizziness - nausea - vomiting - cyanosis - respiratory paralysis - coma and death
Long term effects may include:
- damage to nervous system - peripheral nerve damage - brain damage - anemia - kidney damage - damage to reproductive system - embryo/fetotoxicity
Health Effects - Inhalation Contains lead which is a cumulative poison. Exposure to vapor or mist may have the following effects:
- severe irritation to nose, throat and respiratory tract and possibly lung damage - drowsiness - systemic effects similar to those resulting from ingestion

4. FIRST AID MEASURES

First Aid - Eyes Immediately flush the eye with plenty of water for at least 20 minutes, holding the eye open. Obtain medical attention immediately.
First Aid - Skin Immediately flush the skin with large quantities of water, preferably under a shower. Remove contaminated clothing while flushing skin. Continue washing for at least 20 minutes. Contaminated clothing should be washed or dry-cleaned before re-use. Obtain medical attention immediately.
First Aid - Ingestion Do not induce vomiting. Have victim drink 1-3 glasses of water to dilute stomach contents. Obtain medical attention immediately.
First Aid - Inhalation Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately
Advice to Physicians Treat symptomatically. Treat skin burns conventionally.

5. FIRE FIGHTING MEASURES

Extinguishing Media Use water spray, foam, dry chemical or carbon dioxide.
Special Fire-Fighting Procedures This product may give rise to hazardous vapors in a fire.
Unusual Fire & Explosion Hazards CONTACT WITH METALS MAY EVOLVE FLAMMABLE HYDROGEN GAS.
Protective Equipment for Fire-Fighting Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures Spills may be absorbed with appropriate absorbent material for acid solutions. Transfer into suitable containers for recovery or disposal.
Personal Precautions Wear appropriate protective clothing. Wear respiratory protection.
Environmental Precautions Prevent the material from entering drains or water courses. Advise Authorities if spillage has entered water course or sewer or has contaminated soil or vegetation.

7. HANDLING AND STORAGE

Handling Use local exhaust ventilation. Avoid contact with eyes, skin and clothing. Emergency shower and eye wash facilities should be readily available. Avoid inhaling vapor. Keep container tightly closed when not in use.
Storage Store in original containers. Storage area should be:
- cool - dry - well ventilated - out of direct sunlight - away from incompatible materials

Other
None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational Exposure Standards**

<b>Sulfonic acid</b>	None assigned.
<b>Lead Compound</b>	(as lead) ACGIH: TLV 0.05mg/m <sup>3</sup> 8h TWA. OSHA: PEL 0.05mg/m <sup>3</sup> 8h TWA.  UK EH40: OES 0.15mg/m <sup>3</sup> 8h TWA.
<b>Engineering Control Measures</b>	Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.
<b>Respiratory Protection</b>	Respiratory protection if there is a risk of exposure to high vapor concentrations. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.
<b>Hand Protection</b>	Neoprene or nitrile gloves. Other chemical resistant gloves may be recommended by your safety professional.
<b>Eye Protection</b>	Chemical goggles and face shield.
<b>Body Protection</b>	- rubber or neoprene apron

9. **PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Liquid
<b>Color</b>	Clear Colorless - Slightly Hazy
<b>Odor</b>	Slight
<b>VOC (g/l)</b>	0
<b>Specific Gravity</b>	Approx. 1.646
<b>pH</b>	<3.5
<b>Boiling Range/Point (°C/F)</b>	>100 / 212
<b>Flash Point (PMCC) (°C/F)</b>	Not Flammable
<b>Explosion Limits (%)</b>	Not applicable.
<b>Solubility in Water</b>	Completely soluble.
<b>Vapor Density (Air = 1)</b>	Heavier than air.
<b>Evaporation Rate</b>	Slower than ether
<b>Vapor Pressure</b>	Equivalent to water.

10. **STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	- contact with incompatible materials - High temperatures
<b>Incompatibilities</b>	- Strong oxidizing agents - Alkalis - Cyanides - sulfides - steel - Metals
<b>Hazardous Polymerization</b>	Will not occur.
<b>Hazardous Decomposition Products</b>	- oxides of carbon - oxides of sulfur - lead fumes - ketones - aldehydes

CONTACT WITH METALS MAY EVOLVE FLAMMABLE HYDROGEN GAS.

11. **TOXICOLOGICAL INFORMATION**

<b>Acute Data</b>	Lead Compound: Oral LD50 (rat) 4665mg/kg.  Sulfonic Acid: Oral LD50 (rat) 2,000mg/kg. Single application to the rabbit eye produced severe conjunctival irritation and corneal damage. A single 4h semi-occlusive application to intact rabbit skin produced burns (full thickness destruction of skin).
<b>Chronic/Subchronic Data</b>	Lead Compound: IARC assessment: this product is possibly carcinogenic to humans (Group 2B). NTP Assessment: one of the components of this product is reasonably anticipated to be a human carcinogen.  In laboratory animals, prolonged oral exposure produced carcinogenesis in the following tissues or systems: - kidney - thyroid - testicles - pituitary gland - adrenal gland - prostate gland - mammary glands  Lead Compound: Studies indicate long-term exposures may cause the following: - physical damage to nervous system - mental and behavioral impairment - brain damage - anemia - kidney damage - ocular disturbances Has been found to be mutagenic in a variety of systems.
<b>Genotoxicity</b>	
<b>Reproductive/Developmental Toxicity</b>	Lead Compound: Adverse effects on the male reproductive system have been reported in humans following repeated exposure. Adverse effects on the female reproductive system have been reported in laboratory animals following repeated exposure. Experimental studies in animals have provided evidence of embryo/fetotoxicity and birth defects.
<b>Additional Data</b>	None.

12. **ECOLOGICAL INFORMATION**

<b>Mobility</b>	The product will dissolve rapidly in water. The product is poorly absorbed onto soils or sediments. The product will leach into soil.
<b>Persistence/Degradability</b>	This products contains inorganic salts and/or elements which can persist indefinitely. The term "biodegradation" does not apply to inorganics. The organic part of the product is expected to be readily biodegradable
<b>Bio-accumulation</b>	No relevant studies identified.
<b>Ecotoxicity</b>	The product may be harmful to aquatic organisms based on the acidic characteristic.

13. **DISPOSAL CONSIDERATIONS**

<b>Product Disposal</b>	Dispose of in accordance with all applicable local and national regulations.
<b>Container Disposal</b>	Labels should not be removed from containers until they have been cleaned. Empty containers may contain hazardous residues. Dispose of containers with care.

14. **TRANSPORT INFORMATION**

<b>DOT Ground:</b>	Corrosive liquid, Toxic, n.o.s.
<b>UN Proper Shipping Name</b>	Corrosive liquid, Toxic, n.o.s.
<b>UN Class</b>	8 (corrosive)
<b>UN Number</b>	UN2922
<b>UN Packaging Group</b>	II
<b>N.O.S. 1:</b>	Sulfonic Acid
<b>N.O.S. 2:</b>	Lead Compound
<b>Subsidiary Risks</b>	None.
<b>ADR/RID Substance Identification Number</b>	None.
<b>CERCLA RQ</b>	Lead (10#)
<b>Marine Pollutant</b>	None.

15. **REGULATORY INFORMATION**

**TSCA Listed**

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50. This product is not subject to a Section 5(e) Consent Order or Significant New Use Rule (SNUR).

**TSCA Exemptions****TSCA Sec.12(b) Export Notification**

This product does not contain any substances subject to Section 12(b) export notification.

**WHMIS Classification**

E, D.2.A.

**MA Right To Know Law**

All components have been checked for inclusion on the Massachusetts Substance List (MSL). Those components present at the de minimis concentration have been identified in the hazardous ingredients section of the MSDS.

**California Proposition 65**

This product contains the following chemicals that have been found by the State of California to cause cancer, birth defects or other reproductive harm: - Lead

**SARA TITLE III-Section 311/312 Categorization (40 CFR 370)**

Immediate, delayed health hazard

**SARA TITLE III-Section 313 (40 CFR 372)**

This product contains a chemical which is listed in Section 313 at or above de minimis concentrations. The following listed chemicals are present: (quantity present is found elsewhere on this MSDS) - Lead compounds

16.

**OTHER INFORMATION****NFPA Rating- FIRE**

0

**NFPA Rating- HEALTH**

3

**NFPA Rating- REACTIVITY**

1

**NFPA Rating- SPECIAL**

None.

**Revisions Highlighted****Abbreviations**

CAS#: Chemical Abstract Services Number

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

R: Risk

S: Safety

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

BOD: Biological Oxygen Demand

Koc: Soil Organic Carbon Partition Coefficient.

Tlm: Median Tolerance Limit

**Disclaimer**

[The data contained herein is based on information that Shipley Company believes to be reliable, but no expressed or implied warranty is made with regard to the accuracy of such data or its suitability for a given situation. Such data relates only to the specific product described and not to such products in combination with any other product and no agent of Shipley Company is authorized to vary any of such data. Shipley Company and its agents disclaim all liability for any action taken or foregone on reliance upon such data.](#)