1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Code	47111301
Trade Name	SOLDERON SC PRIMARY
Manufacturer/Supplier	Shipley Company
Address	455 Forest St. Marlborough, Massachusetts 01752
Phone Number	(508) 481-7950
Emergency Phone Number	(508) 481-7950
Chemtrec #	(800) 424-9300
MSDS first issued	15 June 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

Component Name	CAS# / Codes	Concentration
water	7732-18-5	90.00 - 95.00
Polyglycol		1.00 - 5.00
Catechol	120-80-9	0.01 - 0.99
Methane sulfonic acid	75-75-2	0.01 - 0.99

3. HAZARD IDENTIFICATION

Main Hazards	- Carcinogen - Irritant - Skin - Eye - Respiratory System - Blood - Liver - Kidney - Nervous System
Routes of Entry	Inhalation, ingestion, eye and skin contact, absorption.
Carcinogenic Status	Listed as carcinogenic by IARC.
Target Organs	- Skin - Eye - Respiratory System - Blood - Liver - Kidney - Nervous System
Health Effects - Eyes	Liquid or vapor may cause conjunctival irritation and transient corneal damage.
Health Effects - Skin	Material may cause irritation. Liquid may be absorbed through the skin in toxicologically significant amounts if area of contact is large and exposure prolonged. Repeated and/or prolonged contact may lead to: - dermatitis - discoloration - liver damage - kidney damage - headache - damage to the central nervous system - blood disorders
Health Effects - Ingestion	A large dose may have the following effects: - severe gastrointestinal irritation - liver damage - kidney damage - damage to the central nervous system - blood disorders
Health Effects - Inhalation	Exposure to vapor at high concentrations may have the following effects: - severe pulmonary irritation - coughing - difficulty with breathing - pulmonary edema

4. FIRST AID MEASURES

First Aid - Eyes	Immediately flush the eye with plenty of water for at least 15 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. Obtain medical attention if blistering occurs or redness persists. If symptoms of poisoning develop, treat as for inhalation. Contaminated clothing should be washed or dry-cleaned before re-use.
First Aid - Ingestion	Wash out mouth with water. Obtain medical attention.
First Aid - Inhalation	Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately
Advice to Physicians	Treat symptomatically.

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	None.
Protective Equipment for Fire-Fighting	Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures	Transfer into suitable containers for recovery or disposal. Spills may be absorbed with appropriate absorbent material for acid solutions.
Personal Precautions	Wear appropriate protective clothing.
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 in well ventilated area. Avoid inhaling vapor. Avoid contact with eyes, skin and clothing. 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

Other

None.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards

Catechol	ACGIH: TLV 5ppm (20mg/m3). OSHA: PEL 5ppm
Methane sulfonic acid	None assigned.
Engineering Control Measures	Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.

Respiratory Protection	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.
Hand Protection	Butyl rubber or neoprene gloves. Other chemical resistant gloves may be recommended by your safety professional.
Eye Protection	Chemical goggles.
Body Protection	Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Color	Clear Colorless
Odor	Mild
VOC (g/l)	60.2
Specific Gravity	1.0 - 1.02
pH	< 2.0
Boiling Range/Point (°C/F)	Not determined.
Flash Point (PMCC) (°C/F)	Not Flammable
Explosion Limits (%)	Not applicable.
Solubility in Water	Miscible.
Vapor Density (Air = 1)	Heavier than air.
Evaporation Rate	Slower than ether
Vapor Pressure	Not applicable.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	- contact with incompatible materials - Exposure to direct sunlight
Incompatibilities	- Strong oxidizing agents - Reducing agents - Cyanides
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	- carbon monoxide - Carbon Dioxide - oxides of sulfur

11. TOXICOLOGICAL INFORMATION

Acute Data	Methane Sulfonic Acid: Oral LD50 (rat) 2000mg/kg. Catechol: Oral LD50 (mouse) 260mg/kg.
Chronic/Subchronic Data	Catechol: In laboratory animals, evidence of carcinogenic activity was observed. Studies have shown that this product readily penetrates skin and that skin contact can result in significant absorbtion and systemic toxicicity.
Genotoxicity	No relevant studies identified.
Reproductive/Developmental Toxicity	No relevant studies identified.
Additional Data	None.

12. ECOLOGICAL INFORMATION

Mobility	No relevant studies identified.
Persistence/Degradability	No relevant studies identified.
Bio-accumulation	No relevant studies identified.
Ecotoxicity	The product may be harmful to aquatic organisms. Do not discharge directly to surface water. Catechol: Tests on the following species gave a 48h TLm of 14mg/litre: - goldfish

13. DISPOSAL CONSIDERATIONS

Product Disposal	Dispose of in accordance with all applicable local and national regulations.
Container Disposal	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

DOT Ground:	Not Regulated
UN Proper Shipping Name	None.
UN Class	None.
UN Number	None
UN Packaging Group	None.
N.O.S. 1:	Not applicable.
N.O.S. 2:	Not applicable.
Subsidiary Risks	None.
ADR/RID Substance Identification Number	None assigned.
CERCLA RQ	Catechol (100#)
Marine Pollutant	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	D.2.A , D.2.B
MA Right To Know Law	All components have been checked for inclusion on the Massachusetts Substance List (MSL). Those components present at the de minimus concentration have been identified in the hazardous ingredients section of the MSDS.
California Proposition 65	This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.
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) - Catechol (120-80-9)

16. OTHER INFORMATION

NFPA Rating- FIRE	0
NFPA Rating- HEALTH	2
NFPA Rating- REACTIVITY	0
NFPA Rating- SPECIAL	None.
Revisions Highlighted	
Abbreviations	N/A: Denotes no applicable information was found. 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