



Material Safety Data Sheet

Revision Date 23-Apr-2015

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product code P61825
Product name METALLOY SS HD
SOLDERSILVR-BRG
Recommended Use Solder Alloy
Supplier Kent Automotive
8770 W.Bryn Mawr Ave.- Suite 900
Chicago, IL 60631
1-866-529-7664
Emergency telephone number (888) 426-4851

2. HAZARDS IDENTIFICATION

Emergency Overview
Irritant.

Aggravated Medical Conditions
None Known.

Principal Routes of Exposure
Inhalation. Eyes. Skin contact. Ingestion.

Potential health effects

Eyes May cause the following effects:. Severe irritation.

Skin May cause the following effects:. Skin Irritation.

Inhalation Avoid breathing vapors or mists. Irritating to respiratory system. May cause the following effects. Breathing difficulty. Prolonged overexposure may cause. Shortness of breath. Coughing.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Tin	7440-31-5	< 80
Petrolatum	8009-03-8	< 29
Glycerine	56-81-5	< 6
Silver	7440-22-4	< 5
Bismuth	7440-69-9	< 5
Zinc chloride	7646-85-7	< 2

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4. FIRST AID MEASURES

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical attention IMMEDIATELY.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
Ingestion	Do Not induce vomiting. Seek medical attention immediately.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Seek medical attention immediately.

5. FIRE FIGHTING MEASURES

Flash point °C	204
Flash point °F	400
Method	Open cup
Autoignition temperature °C	Not Applicable
Autoignition temperature °F	Not Applicable
Flammability Limits (% in Air)	
Upper	No data available
Lower	No data available

Suitable extinguishing media

Dry chemical powder. Alcohol foam. Carbon dioxide (CO2).

Special protective equipment for firefighters

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

Special Fire-Fighting Procedures

Firefighters should wear NIOSH/MSHA approved (or equivalent) self-contained pressure-demand breathing apparatus and full protective clothing.

Fire and Explosion Hazards

Contact with open flame or hot surfaces may generate toxic fumes. Containers may vent or burst under extreme or prolonged fire conditions. Water should be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Sensitivity to shock

No information available.

Sensitivity to static discharge

No information available.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions

Should not be released into the environment.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Absorb with vermiculite. Place in suitable container for disposal as hazardous waste. US regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities (RQ). Excess of 1000 pounds of silver (20,000 pounds of this product).

Clean-up methods - large spill

Large spills are reportable under SARA Title III, section 304.

7. HANDLING AND STORAGE

Handling

Keep away from open flames, hot surfaces and sources of ignition. Vapors harmful. Avoid breathing vapors. Observe all precautions even after container is emptied. Keep empty container closed tightly.

Storage

Keep out of the reach of children. Do not store near oxidizers. Store away from acids. Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Tin	-	-	2 mg/m ³	-
Petrolatum	-	-	-	-
Glycerine	15 mg/m ³	-	-	-
Silver	0.01 mg/m ³	-	0.1 mg/m ³	-
Bismuth	-	-	-	-
Zinc chloride	1 mg/m ³	-	1 mg/m ³	2 mg/m ³

Ventilation and Environmental Controls

Provide local exhaust ventilation.

Hygiene measures

Washing hands, face, neck and arms thoroughly before eating or smoking is recommended. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing.

Respiratory protection

For exposure below TLV and PEL values (see section 8), the use of a particle mask is recommended. For exposure above TLV and PEL, use NIOSH/MISHA SA:CF (with eye protection) / PAPRHIE (with eye protection). For escape, use HIEF/SCBA (self-contained breathing apparatus).

Hand Protection

Neoprene gloves. Rubber gloves.

Eye protection

ANSI approved safety glasses or splash goggles with face shield are recommended.

Skin and body protection

Chemical resistant apron.

Other Protective Equipment

A safety shower and eye wash station should be available for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Paste
Color	Gray
Odor	Faint
Odor Threshold	Not Applicable
pH	Not Applicable
Specific Gravity	2.42
Vapor pressure	Not Applicable
Vapor density	Not Applicable
Evaporation Rate	Not Applicable
Water solubility	< 2%
VOC Content	Not Applicable
Partition Coefficient (n-octanol/water)	Not Applicable
Boiling point/range °C	Not Applicable
Boiling point/range °F	Not Applicable

Melting point/range °C	55
Melting point/range °F	132
Flash point °C	204
Flash point °F	400

10. STABILITY AND REACTIVITY**Stability**

Stable.

Conditions to avoid

Avoid open flames.

Incompatibility

Acids. Strong oxidizing agents. Sulfur. Chlorine.

Hazardous Decomposition Products

Heat. Carbon dioxide. Exposure to strong acids can produce toxic organic and inorganic compounds such as tin and silver compounds. Acrolein.

Polymerization

Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION**Component Information**

Chemical Name	LD50 (oral, rat)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat)
<i>Tin</i> 7440-31-5	700 mg/kg	-	-
<i>Petrolatum</i> 8009-03-8	-	3600 mg/kg	-
<i>Glycerine</i> 56-81-5	12600 mg/kg	10 g/kg	570 mg/m ³
<i>Silver</i> 7440-22-4	2000 mg/kg	-	-
<i>Bismuth</i> 7440-69-9	5 g/kg	-	-
<i>Zinc chloride</i> 7646-85-7	1100 mg/kg	-	-

Synergistic Products None known.

Potential health effects

Sensitization None known.

Chronic toxicity None known.

Mutagenic effects None known.

Teratogenic effects None known.

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Reproductive toxicity None known.

Target Organ Effects See Section 2.

Carcinogenic effects See table below.

Chemical Name	ACGIH OEL - Carcinogens	IARC	NTP - Known Carcinogens	NTP - Suspected Human Carcinogens	OSHA RTK Carcinogens
Tin	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Petrolatum	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Glycerine	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Silver	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Bismuth	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Zinc chloride	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Glycerine

Water Flea Data

500: 24 h *Daphnia magna* mg/L EC50

Silver

Water Flea Data

0.00024: 48 h *Daphnia magna* mg/L EC50 Static

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products

As supplied, this product is a RCRA Hazardous Waste. Emptied container retains product residue. Discard in accordance with federal, state, and local regulations.

14. TRANSPORTATION INFORMATION

DOT

Not Regulated

TDG

Not Regulated

15. REGULATORY INFORMATION

US EPA SARA 313 US regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities (RQ) Excess of 1000 pounds of silver (20,000 pounds of this product)

Chemical Name	US EPA SARA 313 Emission Reporting
Silver	Listed
Zinc chloride	Listed

State Regulations

Chemical Name	New Jersey - RTK	Pennsylvania - RTK	California Prop. 65
Tin	Not Listed	Listed	Not Listed
Petrolatum	Not Listed	Not Listed	Not Listed
Glycerine	Not Listed	Listed	Not Listed
Silver	Listed	Listed	Not Listed
Bismuth	Not Listed	Not Listed	Not Listed
Zinc chloride	Listed Listed	Listed	Not Listed

International Inventories

Chemical Name	EINECS	DSL	NDSL	TSCA	Tin
X	X	-	X	Petrolatum	X
X	-	X	Glycerine	X	X
-	X	Silver	X	X	-
X	Bismuth	X	X	-	X
Zinc chloride	X	X	-	X	

CPR

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all of the information required by the Controlled Product Regulations.

16. OTHER INFORMATION

HMIS

Health - 2
Flammability - 1
Physical Hazard - 1

Prepared By

V. Shargorodsky, Regulatory Affairs Engineer

The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.