

SAFETY DATA SHEET

Revision: 1.1 Date: 14.04.2015

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),
1272/2008 (CLP) & 453/2010

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1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier**
Product Name M-Line 450-20S Solder
Chemical Name Mixture
CAS No. Mixture
EINECS No. Mixture
REACH Registration No. None assigned.
- 1.2 Recommended use of the chemical and restrictions on use**
Identified Use(s) PC38 Welding and soldering products (with flux coatings or flux cores.), flux products
Uses Advised Against None known.
- 1.3 Supplier's details**
Company Identification VISHAY MEASUREMENTS GROUP, INC.
Post Office Box 27777
Raleigh, NC 27611
USA
Telephone 919-365-3800
Fax 919-365-3945
E-Mail (competent person) mm.us@vishaypg.com
- 1.4 Emergency Phone No.** 1-800-424-9300
CHEMTREC

2. SECTION 2: HAZARDS IDENTIFICATION

- 2.1 GHS Classification** Not classified as dangerous for supply/use.
- 2.2 Label elements** According to Regulation (EC) No. 1272/2008 (CLP)
Product Name M-Line 450-20S Solder
Hazard Pictogram(s) None assigned.
Signal Word(s) None assigned.
Hazard Statement(s) None assigned.
Precautionary Statement(s) None assigned.
Additional Information None.
- 2.3 Other hazards** None.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.2 Mixtures**
No classifiable hazardous ingredient(s).

4. SECTION 4: FIRST AID MEASURES



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4.1 Description of first aid measures

Inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin Contact

Wash with plenty of water. If irritation (redness, rash, blistering) develops, get medical attention.

Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion

Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Do not induce vomiting. If symptoms develop, obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

None anticipated.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. In case of burns immediately cool affected skin as long as possible with cold water.

5. SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media

As appropriate for surrounding fire.

Unsuitable extinguishing media

Do not use water on fires when molten metal is present.

5.2 Special hazards arising from the substance or mixture

Solder containing antimony may liberate antimony oxide if heated above 537°C.

5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. See Section: 8. Melted solder will solidify on cooling and can be scraped up. Avoid breathing smoke fumes during soldering. Use caution to avoid breathing fumes if a gas torch is used to cut up large pieces.

6.2 Environmental precautions

Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.

6.3 Methods and material for containment and cleaning up

Allow product to cool/solidify and pick up as a solid. Transfer to a container for disposal. Recover or recycle if possible.

6.4 Reference to other sections

See Section: 8, 13

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid breathing smoke fumes during soldering. Use caution to avoid breathing fumes if a gas torch is used to cut up large pieces. Ensure adequate ventilation. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. When molten: Keep from any possible contact with water.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place.

Storage temperature

Ambient.

Storage life

Stable under normal conditions.

Incompatible materials

Store away from sources of sulfur. Keep away from: Acids, Chlorine and Strong oxidising agents.

7.3 Specific end use(s)

PC38 Welding and soldering products (with flux coatings or flux cores.), flux products. See Section: 1.2

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

Not applicable.

8.1.2 Biological limit value




Not established.

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8.1.3	PNECs and DNELs	Not established.
8.2	Exposure controls	
8.2.1	Appropriate engineering controls	Ensure adequate ventilation. or Use appropriate containment. Atmospheric levels should be controlled using the principles of good occupational hygiene practice.
8.2.2	Individual protection measures, such as personal protective equipment (PPE)	General hygiene measures for the handling of chemicals are applicable. Avoid breathing smoke fumes during soldering. Use caution to avoid breathing fumes if a gas torch is used to cut up large pieces. Wash hands before breaks and after work. Do not eat, drink or smoke at the work place.
	Eye/ face protection	When molten: Goggles or Full face shield.
		
	Skin protection	Hand protection: Wear impervious gloves (EN374).
		
	Respiratory protection	In case of inadequate ventilation wear respiratory protection. Open system(s): Wear suitable respiratory protective equipment.
		
	Thermal hazards	Not applicable.
8.2.3	Environmental Exposure Controls	Avoid release to the environment.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Information on basic physical and chemical properties	
	Appearance	Silver - Grey metal in wire form
	Odour	Not available.
	Odour threshold	Not available.
	pH	Not available.
	Melting point/freezing point	Not available.
	Initial boiling point and boiling range	Not available.
	Flash point	Not applicable.
	Evaporation rate	Not applicable.
	Flammability (solid, gas)	Non-flammable.
	Upper/lower flammability or explosive limits	Not applicable.
	Vapour pressure	Not available.
	Vapour density	Not available.
	Relative density	>1 (H ₂ O = 1)
	Solubility(ies)	Insoluble in water.
	Partition coefficient: n-octanol/water	Not available.
	Auto-ignition temperature	Not available.
	Decomposition Temperature	Not available.
	Viscosity	Not available.
	Explosive properties	Not explosive.
	Oxidising properties	Not oxidising.
9.2	Other information	None.

10. SECTION 10: STABILITY AND REACTIVITY

10.1	Stability and reactivity	Stable under normal conditions.
10.2	Chemical stability	Stable under normal conditions.

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10.3	Possibility of hazardous reactions	Reacts vigorously with chlorine and oxidising agents.
10.4	Conditions to avoid	None known.
10.5	Incompatible materials	Store away from sources of sulfur. Keep away from: Acids, Chlorine and Strong oxidising agents.
		When molten: Keep from any possible contact with water.
10.6	Hazardous decomposition product(s)	Solder containing antimony may liberate antimony oxide if heated above 537°C.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects (Substances in preparations / mixtures)

Acute toxicity

Ingestion

Based upon the available data, the classification criteria are not met.
Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.

Inhalation

Based upon the available data, the classification criteria are not met.
Acute Toxicity Estimate Mixture Calculation: Estimated LC50 >20.0 mg/l.

Skin Contact

Based upon the available data, the classification criteria are not met.
Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.

Skin corrosion/irritation

Based upon the available data, the classification criteria are not met.

Serious eye damage/irritation

Based upon the available data, the classification criteria are not met.

Respiratory or skin sensitization

Based upon the available data, the classification criteria are not met.

Germ cell mutagenicity

Based upon the available data, the classification criteria are not met.

Carcinogenicity

Based upon the available data, the classification criteria are not met.

Reproductive toxicity

Based upon the available data, the classification criteria are not met.

STOT - single exposure

Based upon the available data, the classification criteria are not met.

STOT - repeated exposure

Based upon the available data, the classification criteria are not met.

Aspiration hazard

Based upon the available data, the classification criteria are not met.

11.2 Other information

Based upon the available data, the classification criteria are not met.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Based upon the available data, the classification criteria are not met.
Estimated Mixture LC50 >100 mg/l (Fish)

12.2 Persistence and degradability

The product is not biodegradable. (metals).

12.3 Bioaccumulative potential

The product has low potential for bioaccumulation. (metal in wire form)

12.4 Mobility in soil

The product is predicted to have low mobility in soil. (metal in wire form)

12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

12.6 Other adverse effects

None known.

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Solder can be reclaimed.

13.2 Additional Information

Dispose of contents in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR/RID / IMDG / IATA

Not classified as dangerous for transport.

14.2 Proper Shipping Name

Not classified

14.3 Transport hazard class(es)

Not classified

14.4 Packing group

Not classified

14.5 Environmental hazards

Not classified as a Marine Pollutant.

14.6 Special precautions for user

See Section: 2

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

14.8 Additional Information

None.

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15. SECTION 15: REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- 15.1.2 National regulations**
- USA
- NTP: Not listed
IARC Monographs: Not listed
OSHA Regulated: Not listed
- 15.1.1 EU regulations**
- SVHCs
Germany
- None
Water hazard class: Not classified
- 15.2 Chemical Safety Assessment**
- Not available.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

References: Existing Safety Data Sheet (SDS), Existing ECHA registration(s) for Tin (CAS# 7440-31-5) and Antimony (CAS# 7440-36-0).

LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
DNEL	Derived No Effect Level
PNEC	Predicted No Effect Concentration
PBT	PBT: Persistent, Bioaccumulative and Toxic
vPvB	very Persistent and very Bioaccumulative
NTP	National Toxicology Program
IARC	International Agency for Research on Cancer
OSHA	The Occupational Safety & Health Administration
NIOSH	National Institute for Occupational Safety and Health

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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Annex to the extended Safety Data Sheet (eSDS)

No information available.