SAFETY DATA SHEET

Issuing Date 01-Jul-2015

Revision Date 13-Dec-2022

Revision Number 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name HD-50 LEW51

Other means of identification

Product Code(s) 800999 UN-Number UN3082

. .

Recommended use of the chemical and restrictions on use

None

Recommended Use Solder Mask

Uses advised against No information available

Supplier's details

Synonyms

Supplier Address Taiyo America, Inc. 2675 Antler Drive Carson City, NV 89701 TEL: 775-885-9959 (M-F 8-4 PDT)

Email SDSinfo@taiyo-america.com

Emergency telephone number

1-800-255-3924 (USA) 1-813-248-0585 (International)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1

GHS Label elements, including precautionary statements

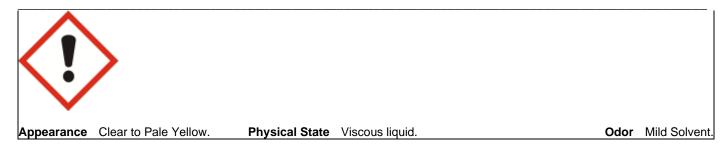
Emergency Overview

Signal Word Hazard Statements Warning

Causes skin irritation

Causes serious eye irritation

May cause an allergic skin reaction



Precautionary Statements

Prevention

- Wash face, hands and any exposed skin thoroughly after handling.
- Avoid breathing dust/fume/gas/mist/vapors/spray.
- · Contaminated work clothing should not be allowed out of the workplace.
- Wear protective gloves/protective clothing/eye protection/face protection.

General Advice

• Specific treatment (see supplemental first aid instructions on this label)

Eyes

• IF IN EYES: 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.

Skin

- IF ON SKIN: Wash with plenty of soap and water.
- Take off contaminated clothing and wash before reuse.
- If skin irritation or rash occurs: Get medical advice/attention.

Storage

None

Disposal

• Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)

Not applicable.

Other information

Toxic to aquatic life with long lasting effects.

50.62% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade secret
Bisphenol A - Epichlorohydrin polymer	25068-38-6	30-40	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.

Ingestion	Rinse mouth. Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.		
Most important symptoms/effects, a	acute and delayed		
Most Important Symptoms/Effects	ts No information available.		
Indication of immediate medical atte	ention and special treatment needed, if necessary		
Notes to Physician	Treat symptomatically.		
	5. FIRE-FIGHTING MEASURES		
Suitable Extinguishing Media Carbon dioxide (CO ₂). Foam. Dry che	emical.		
Unsuitable Extinguishing Media	No information available.		
Specific Hazards Arising from the C Thermal decomposition can lead to re	chemical lease of irritating and toxic gases and vapors.		
Explosion Data Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.			
Protective Equipment and Precaution As in any fire, wear self-contained bree protective gear.	ons for Firefighters athing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full		
	6. ACCIDENTAL RELEASE MEASURES		
Personal precautions, protective eq	uipment and emergency procedures		
Personal Precautions	Avoid contact with the skin and the eyes. Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment.		
Environmental Precautions			
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Avoid release to the environment.		
Methods and materials for containment and cleaning up			
Methods for Containment	Prevent further leakage or spillage if safe to do so.		
Methods for Cleaning Up	Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.		

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Do not take internally. Wash thoroughly after handling.

Conditions for safe storage, inclu	Iding any incompatibilities			
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the react of children. Keep in properly labeled containers.			
Incompatible Products	Strong oxidizing agents.			
8. E	XPOSURE CONTROLS / PERSONAL PROTECTION			
Control parameters				
Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.			
Appropriate engineering controls				
Engineering Measures	Showers Eyewash stations Ventilation systems			
Individual protection measures, s	such as personal protective equipment			
Eye/Face Protection Skin and Body Protection Respiratory Protection	Tightly fitting safety goggles. Lightweight protective clothing. Impervious gloves. In case of inadequate ventilation wear respiratory protection. If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.			
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.			
	9. PHYSICAL AND CHEMICAL PROPERTIES			

Information on basic physical and chemical properties

	Viscous liquid.	Appearance	Clear to Pale Yellow.
	Mild Solvent.	Odor Threshold	No information available.
Odor Property pH Melting Point/Range Boiling Point/Boiling Range Flash Point Evaporation rate Flammability (solid, gas) Flammability Limits in Air upper flammability limit lower flammability limit lower flammability limit Vapor Pressure Vapor Density Specific Gravity Water Solubility Solubility in other solvents Partition coefficient: n-octanol Autoignition Temperature Decomposition Temperature Viscosity Flammable Properties Explosive Properties Explosive Properties	ValuesNo data availableNo data availableNo data available107 °C / 224.6 °FNo data availableNo data available	Odor Inreshold Remarks/ - I None known None known	

Other information

VOC Content (%) VOC (g/l) No data available 191

10. STABILITY AND REACTIVITY

Reactivity

No data available.

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

Incompatible products.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors: Carbon dioxide (CO₂). Carbon monoxide (CO).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	
Inhalation	No known effect based on information supplied.
Eye Contact	Irritating to eyes. Causes serious eye irritation.
Skin Contact	Causes skin irritation. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	No known effect based on information supplied

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Bisphenol A - Epichlorohydrin	11400 mg/kg (Rat)	-	-
polymer			

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization	May cause sensitization of susceptible persons. May cause sensitization by skin contact.
Mutagenic Effects	No information available.
Carcinogenicity	Contains no ingredients above reportable quantities listed as a carcinogen.
Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration Hazard	No information available.

Numerical measures of toxicity -				
Acute Toxicity The following values are calculat	50.62% of the mixture consists of ingredient(s) of unknown toxicity. ed based on chapter 3.1 of the GHS document:			
LD50 Oral 11260 mg/kg; Acute toxicity estimate				
LD50 Dermal29270895mg/kg; Acute toxicity estimate				
	12. ECOLOGICAL INFORMATION			
<u>Ecotoxicity</u> Toxic to aquatic life with long lasting	effects.			
Persistence and Degradability	No information available.			
Bioaccumulation	No information available.			
Other Adverse Effects No information available.				
	13. DISPOSAL CONSIDERATIONS			
Waste Disposal Methods	Dispose of in accordance with federal, state, and local regulations			
Contaminated Packaging	Do not re-use empty containers.			
	14. TRANSPORT INFORMATION			
Note:	Not regulated in quantities less than 5 liter per individual container. See IATA SP A197, IMDG 2.10.2.7 and ADR SP 375.			
DOT UN-Number Proper shipping name Hazard Class Packing Group Description Emergency Response Guide Number	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A - Epichlorohydrin polymer), 9, III 171			
<u>TDG</u> UN-Number Proper Shipping Name Hazard Class Packing Group Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A - Epichlorohydrin polymer), 9, III			
<u>MEX</u> UN-Number Proper Shipping Name Hazard Class Packing Group Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A - Epichlorohydrin polymer), 9, III			
ICAO UN-Number Proper shipping name Hazard Class	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9			

Packing Group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III
UN-Number	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
ERG Code	9L
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A - Epichlorohydrin polymer), 9, III
IMDG/IMO_	
UN-Number	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
EmS No.	F-A, S-F
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A - Epichlorohydrin polymer), 9, III
RID	
UN-Number	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
Classification Code	M6
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A - Epichlorohydrin polymer), 9, III
ADR	
UN-Number	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	
Classification Code	M6
Tunnel Restriction Code	(E)
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A -
ADR/RID-Labels	Epichlorohydrin polymer), 9, III, (E) 9
ADN_	
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	
Classification Code	M6
Special Provisions	274, 335, 601
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A -
	Epichlorohydrin polymer), 9, III
Limited Quantity	5 L

15. REGULATORY INFORMATION

International Inventories TSCA

DSL

Complies All components are listed either on the DSL or NDSL.

Legend

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

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

U.S. Federal Regulations

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 %
Diethylene glycol monoethyl ether acetate	112-15-2	10-20	1.0
SARA 311/312 Hazard Categories Acute Health Hazard	Yes		
Chronic Health Hazard	No		
Fire Hazard	No		
Sudden Release of Pressure Hazard	No		
Reactive Hazard	No		

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

"X" designates that the ingredients are listed on the state right to know list.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Diethylene glycol monoethyl	Х		Х	Х	
ether acetate					

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION							
NFPA	Health Hazard 2	Flammability 1	Instability 0	Physical and Chemical Hazards -			
<u>HMIS</u>	Health Hazard 2	Flammability 1	Physical Hazard 0	Personal Protection X			
Prepared By	Product S 23 British Latham, I 1-800-57						
Issuing Date Revision Date Revision Note	01-Jul-20 13-Dec-2 Updated						

General Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet