



SAFETY DATA SHEET

Issuing Date 24-May-2015

Revision Date 24-May-2015

Revision Number 0

Section 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Code(s) 800033, 800044

Product Name PSR-9000 LDI Green, PSR-9000 LDI Amber

Contains 1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-, Naphtha (petroleum), heavy aromatic, Bisphenol A - Epichlorohydrin polymer, Naphthalene

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Solder mask part A

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Company

Taiyo America, Inc.
2675 Antler Drive
Carson City, NV 89701
TEL: 775-885-9959

For further information, please contact

E-mail Address No information available.

1.4. Emergency telephone number

Emergency Telephone Number 775-885-9959

Europe	112
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Section 2. Hazards identification

2.1. - Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Reproductive Toxicity	Category 1B
Chronic Aquatic Toxicity	Category 2

Physical Hazards

None

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Symbol(s) T - Toxic
R-code(s) Repr. cat. 1;R60 - Repr. cat. 1;R61 - Xn;R20/22 - R52-53

For the full text of the R-phrases mentioned in this Section, see Section 16

2.2. Label Elements



Signal Word

Danger

Hazard Statements

H360 - May damage fertility or the unborn child
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P201 - Obtain special instructions before use
P281 - Use personal protective equipment as required
P308 + P313 - IF exposed or concerned: Get medical advice/ attention
P273 - Avoid release to the environment
P391 - Collect spillage
P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other information

Contains Bisphenol A - Epichlorohydrin polymer
Contains Melamine, Bisphenol A - Epichlorohydrin polymer.

Section 3. Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical Name	EC-No	CAS-No	Weight %	Classification	EU - GHS Substance Classification	REACH No.
Naphtha (petroleum), heavy aromatic	Present	64742-94-5	<10	Xn;R65	Asp. Tox. 1 (H304)	No data available
Barium sulfate	Present	7727-43-7	5-10	Xn; R20/22		No data available
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	Present	71868-10-5	1-5	R60 R61 Xn; R22 N; R51-53	Repr. 1B H360FD Acute Tox. 4 (H302) Aquatic Chronic 2 (H411)	No data available
Bisphenol A - Epichlorohydrin polymer	500-033-5	25068-38-6	<1	Xi; R36/38 R43 N; R51-53	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)	No data available
Naphthalene	Present	91-20-3	0.1-1	Xn; R22 Carc.Cat.3; R40 N; R50-53	Acute Tox. 4 (H302) Carc. 2 (H351) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available

For the full text of the R-phrases mentioned in this Section, see Section 16
For the full text of the H-Statements mentioned in this Section, see Section 16

Section 4. First aid measures

4.1. Description of first-aid measures

General Advice	If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
Eye Contact	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Consult a physician if necessary.
Ingestion	Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
Protection of First-aiders	Use personal protective equipment.

4.2. Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects No information available.

4.3. Indication of immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO₂). Dry chemical. Dry powder.

Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

Combustible material. Vapors may travel to source of ignition and flash back.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Evacuate personnel to safe areas. Pay attention to flashback. Take precautionary measures against static discharges.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Use personal protective equipment. Dam up. Take up with sand or other noncombustible absorbent material and place into containers for later disposal. Clean contaminated surface thoroughly.

6.4. Reference to other sections

See Section 12 for additional information.

Section 7. Handling and storage

7.1. Precautions for Safe Handling

Handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not breathe vapors or spray mist. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Keep away from heat, sparks and open flame. No smoking. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Do not take internally.

Hygiene Measures

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs. Wash thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Keep out of the reach of children. Keep away from heat and sources of ignition. Keep in properly labeled containers. Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Exposure Scenario

No information available.

Other Guidelines

No information available.

Section 8. Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical Name	EU	The United Kingdom	France	Spain	Germany
Barium sulfate 7727-43-7		STEL: 30 mg/m ³ STEL: 12 mg/m ³ TWA: 10 mg/m ³ TWA: 4 mg/m ³		TWA: 10 mg/m ³	TWA: 4 mg/m ³ TWA: 1.5 mg/m ³ Ceiling / Peak: 4 mg/m ³
Naphthalene 91-20-3	TWA 10 ppm TWA 50 mg/m ³		TWA: 10 ppm TWA: 50 mg/m ³	S* STEL: 15 ppm STEL: 80 mg/m ³ TWA: 10 ppm TWA: 53 mg/m ³	Skin TWA: 0.1 ppm TWA: 0.5 mg/m ³

Component	Italy	Portugal	The Netherlands	Finland	Denmark
Barium sulfate 7727-43-7 (5-10)		TWA: 10 mg/m ³			
Naphthalene 91-20-3 (0.1-1)		STEL: 15 ppm TWA: 10 ppm TWA: 50 mg/m ³	Skin STEL: 80 mg/m ³ TWA: 50 mg/m ³	TWA: 1 ppm TWA: 5 mg/m ³ STEL: 2 ppm STEL: 10 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Barium sulfate 7727-43-7				TWA: 0.5 mg/m ³ STEL: 1.5 mg/m ³	TWA: 2 mg/m ³ STEL: 6 mg/m ³
Naphthalene 91-20-3	Skin TWA: 10 ppm TWA: 50 mg/m ³	Skin TWA: 10 ppm TWA: 50 mg/m ³	STEL: 50 mg/m ³ TWA: 20 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 20 ppm STEL: 75 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 15 ppm STEL: 75 mg/m ³

Component	Italy	Portugal	Netherlands	Finland	Denmark
Naphthalene 91-20-3 (0.1-1)	(ACGIH:) urine end of shift at end of workweek 1-Hydroxypyrene (with hydrolysis) Nonquantitative				
Component	Romania	Slovakia	Latvia	Bulgaria	
Naphthalene 91-20-3 (0.1-1)		5.66 µg/L urine end of exposure or work shift 1-Hydroxypyrene Carcinogens, category 2			

Derived No Effect Level No information available
Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.
Personal protective equipment
Eye Protection Safety glasses with side-shields.
Skin and Body Protection Lightweight protective clothing.
Hand Protection Impervious gloves.
Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Environmental Exposure Controls Do not allow material to contaminate ground water system.

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State Viscous liquid **Appearance** Green or Amber
Odor Mild Solvent

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	No data available	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	No data available	None known
Flash Point	100 °C	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Relative Density	1.17	None known

Water Solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	No data available	None known
Flammable Properties	Combustible material: may burn but does not ignite readily.	
Explosive Properties	No data available	
Oxidizing Properties	No data available	

9.2. Other information

VOC Content (%)	35
VOC (g/l)	411
Flammability Limits in Air	No data available

Section 10. Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Incompatible products. Heat, flames and sparks.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon dioxide (CO₂). Carbon monoxide (CO). Sulfur oxides.

Section 11. Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Product Information

Inhalation

There is no data available for this product.

Eye Contact

There is no data available for this product.

Skin Contact

There is no data available for this product.

Ingestion

There is no data available for this product.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Naphtha (petroleum), heavy aromatic	> 5000 mg/kg (Rat)	> 2 mL/kg (Rabbit)	> 590 mg/m ³ (Rat) 4 h
Bisphenol A - Epichlorohydrin polymer	11400 mg/kg (Rat)	-	-
Naphthalene	= 1110 mg/kg (Rat) = 490 mg/kg (Rat)	(= 1120 mg/kg (Rabbit) > 20 g/kg (Rabbit)	> 340 mg/m ³ (Rat) 1 h

Sensitization

No information available.

Mutagenic Effects

No information available.

Carcinogenic Effects

No information available.

Reproductive Toxicity

Contains a known or suspected reproductive toxin. May damage fertility or the unborn child

Developmental Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target Organ Effects	Central nervous system (CNS). Eyes. Respiratory system. Skin.
Aspiration Hazard	No information available.

Section 12. Ecological information

12.1. Toxicity

Ecotoxicity Effects

Harmful to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Naphtha (petroleum), heavy aromatic	EC50 72 h: = 2.5 mg/L (Skeletonema costatum)	LC50 96 h: = 19 mg/L static (Pimephales promelas) LC50 96 h: = 2.34 mg/L (Oncorhynchus mykiss) LC50 96 h: = 1740 mg/L static (Lepomis macrochirus) LC50 96 h: = 45 mg/L flow-through (Pimephales promelas) LC50 96 h: = 41 mg/L (Pimephales promelas)		EC50 48 h: = 0.95 mg/L (Daphnia magna)
Naphthalene	EC50 72 h: = 0.4 mg/L (Skeletonema costatum)	LC50 96 h: 5.74 - 6.44 mg/L flow-through (Pimephales promelas) LC50 96 h: = 1.6 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: 0.91 - 2.82 mg/L static (Oncorhynchus mykiss) LC50 96 h: = 1.99 mg/L static (Pimephales promelas) LC50 96 h: = 31.0265 mg/L static (Lepomis macrochirus)		LC50 48 h: = 2.16 mg/L (Daphnia magna) EC50 48 h: = 1.96 mg/L Flow through (Daphnia magna) EC50 48 h: 1.09 - 3.4 mg/L Static (Daphnia magna)

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential.

Chemical Name	Log Pow
Naphtha (petroleum), heavy aromatic	2.9 - 6.1
Naphthalene	3.3

12.4. Mobility in soil

Adsorbs on soil.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Bisphenol A - Epichlorohydrin polymer	Group III Chemical		
Naphthalene	Group III Chemical		

Section 13. Disposal considerations

13.1. Waste treatment methods

Waste from Residues / Unused Products

Dispose of in accordance with local regulations.

Contaminated Packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 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.

IMDG/IMO

14.1. UN-Number

UN3082

14.2. Proper Shipping Name

Environmentally hazardous substance, liquid, n.o.s.

14.3. Hazard Class

9

14.4. Packing Group

III

Description

UN3082, Environmentally hazardous substance, liquid, n.o.s. (Naphtha (petroleum), heavy aromatic), 9, III, Marine Pollutant

14.5. Marine Pollutant

None.

Environmental hazard

yes

14.6. Special Provisions

None.

EmS No.

F-A, S-F

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

No information available.

RID

14.1. UN-Number

UN3082

14.2. Proper Shipping Name

Environmentally hazardous substance, liquid, n.o.s.

14.3. Hazard Class

9

14.4. Packing Group

III

Description

UN3082, Environmentally hazardous substance, liquid, n.o.s. (Naphtha (petroleum), heavy aromatic), 9, III

14.5. Environmental hazard

yes

14.6. Special Provisions

None.

Classification Code

M6

ADR

14.1. UN-Number

UN3082

14.2. Proper Shipping Name

Environmentally hazardous substance, liquid, n.o.s.

14.3. Hazard Class

9

14.4. Packing Group

III

Description

UN3082, Environmentally hazardous substance, liquid, n.o.s. (Naphtha (petroleum), heavy aromatic), 9, III, (E)

14.5. Environmental hazard

yes

14.6. Special Provisions

None.

Classification Code

M6

Tunnel Restriction Code

(E)

ICAO

14.1. UN-Number	UN3082
14.2. Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Hazard Class	9
14.4. Packing Group	III
14.4. Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Naphtha (petroleum), heavy aromatic), 9, III
14.5. Environmental hazard	yes
14.6. Special Provisions	None.

IATA

14.1. UN-Number	UN3082
14.2. Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Hazard Class	9
14.4. Packing Group	III
14.4. Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Naphtha (petroleum), heavy aromatic), 9, III
14.5. Environmental hazard	yes
14.6. Special Provisions	None.
ERG Code	9L

Section 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDSL	-
PICCS	-
ENCS	-
IECSC	-
AICS	-
KECL	-

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
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 AICS - Australian Inventory of Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical Safety Assessment

No information available

Section 16. Other information

Full text of R-phrases referred to under Sections 2 and 3

R60 - May impair fertility
 R61 - May cause harm to the unborn child
 R22 - Harmful if swallowed
 R65 - Harmful: may cause lung damage if swallowed
 R43 - May cause sensitization by skin contact
 R40 - Limited evidence of a carcinogenic effect

R20/22 - Harmful by inhalation and if swallowed
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R36/38 - Irritating to eyes and skin
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Full text of H-Statements referred to under sections 2 and 3

H315 - Causes skin irritation
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction
H411 - Toxic to aquatic life with long lasting effects
H302 - Harmful if swallowed
H351 - Suspected of causing cancer if inhaled
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Key literature references and sources for data

www.ChemADVISOR.com/

Issuing Date 24-May-2015

Revision Date 24-May-2015

Revision Note Initial Release.

This safety data sheet complies with the requirements of Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No. 1907/2006

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