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) 400430

Product Name **CA-40 MP, PIHP-200 Part B**

Contains 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(oxiranylmethyl)-

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

Recommended Use Solder mask part B

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

Section 2. Hazards identification

2.1. - Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute Oral Toxicity	Category 4
Acute Inhalation Toxicity - Vapors	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitization	Category 1
Germ Cell Mutagenicity	Category 1B
Specific Target Organ Toxicity (Repeated Exposure)	Category 2

Physical Hazards

None

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

Symbol(s) T - Toxic

R-code(s) Muta. cat. 2;R46 - Xn;R48/22 - Xn;R20/22 - Xi;R41 - R43 - R53

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

2.2. Label Elements

Signal Word **Danger**

Hazard Statements
H302 - Harmful if swallowed
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H332 - Harmful if inhaled
H340 - May cause genetic defects
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary Statements
P270 - Do not eat, drink or smoke when using this product
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor/ physician
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P201 - Obtain special instructions before use
P260 - Do not breathe dust/fume/gas/mist/vapors/spray

2.3. Other information

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.
Barium sulfate	Present	7727-43-7	10-30	Xn; R20/22		No data available
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(oxiranylmethyl)-	219-514-3	2451-62-9	10-30	T; R23/25 Xi; R41 R43 Muta.Cat.2; R46 Xn; R48/22 R52-53	Acute Tox. 3 (H301) STOT RE 2 (H373) Muta. 1B (H340) Acute Tox. 3 (H331) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Chronic 3 (H412)	No data available
Dipropylene glycol monomethyl ether	Present	34590-94-8	10-30	-		No data available
Kaolin	310-194-1	1332-58-7	10-30	-		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 Immediate medical attention is required. If symptoms persist, call a physician.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. 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. If skin irritation persists, call a physician.

Ingestion Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

Inhalation Move to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If not breathing, give artificial respiration. Immediate medical attention is required.

Protection of First-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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 May cause sensitization of susceptible persons. Treat symptomatically.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Suitable Extinguishing Media
Dry chemical, CO_2, water spray or regular foam. 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. Burning produces obnoxious and toxic fumes. Carbon oxides. Sulfur oxides.

5.3. Advice for firefighters

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. 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. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment.

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/m³ STEL: 12 mg/m³ TWA: 10 mg/m³ TWA: 4 mg/m³		TWA: 10 mg/m³	TWA: 4 mg/m³ TWA: 1.5 mg/m³ Ceiling / Peak: 4 mg/m³
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(oxiranylmethyl)- 2451-62-9		STEL: 0.3 mg/m³ TWA: 0.1 mg/m³		VLA-ED: 0.05 mg/m³	

Dipropylene glycol monomethyl ether 34590-94-8	S* TWA 50 ppm TWA 308 mg/m³	STEL: 150 ppm STEL: 924 mg/m³ TWA: 50 ppm TWA: 308 mg/m³ Skin	TWA: 50 ppm TWA: 308 mg/m³	S* TWA: 50 ppm TWA: 308 mg/m³	TWA: 50 ppm TWA: 310 mg/m³ Ceiling / Peak: 50 ppm Ceiling / Peak: 310 mg/m³
Kaolin 1332-58-7		STEL: 6 mg/m³ TWA: 2 mg/m³	TWA: 10 mg/m³	TWA: 2 mg/m³	
Component	**Italy**	**Portugal**	**The Netherlands**	**Finland**	**Denmark**
Barium sulfate 7727-43-7 (10-30)		TWA: 10 mg/m³			
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(oxiranylmethyl)- 2451-62-9 (10-30)		TWA: 0.05 mg/m³		TWA: 0.1 mg/m³	
Dipropylene glycol monomethyl ether 34590-94-8 (10-30)	TWA: 50 ppm TWA: 308 mg/m³ Skin	STEL: 150 ppm TWA: 100 ppm	TWA: 300 mg/m³	TWA: 50 ppm TWA: 310 mg/m³ Skin	TWA: 50 ppm TWA: 309 mg/m³ Skin
Kaolin 1332-58-7 (10-30)		TWA: 2 mg/m³		TWA: 2 mg/m³	TWA: 2 mg/m³
Chemical Name	**Austria**	**Switzerland**	**Poland**	**Norway**	**Ireland**
Barium sulfate 7727-43-7				TWA: 0.5 mg/m³ STEL: 1.5 mg/m³	TWA: 2 mg/m³ STEL: 6 mg/m³
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(oxiranylmethyl)- 2451-62-9					TWA: 0.05 mg/m³
Dipropylene glycol monomethyl ether 34590-94-8	Skin STEL 100 ppm STEL 614 mg/m³ TWA: 50 ppm TWA: 307 mg/m³	STEL: 50 ppm STEL: 300 mg/m³ TWA: 50 ppm TWA: 300 mg/m³	STEL: 480 mg/m³ TWA: 240 mg/m³	TWA: 50 ppm TWA: 300 mg/m³ Skin STEL: 75 ppm STEL: 375 mg/m³	TWA: 50 ppm TWA: 308 mg/m³ Skin
Kaolin 1332-58-7		TWA: 3 mg/m³	TWA: 10.0 mg/m³		TWA: 2 mg/m³

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 Impervious clothing.
Hand Protection Protective gloves.
Respiratory Protection In case of insufficient ventilation wear suitable respiratory equipment.

Environmental Exposure Controls No information available.

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State Viscous liquid **Appearance** Off-white
Odor Mild Solvent

Property	**Values**	**Remarks/ - Method**
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	78 °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	1.52	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 (%)	23
VOC (g/l)	344
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
Heat, flames and sparks. Incompatible products.

10.5. Incompatible materials
Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products
Burning produces obnoxious and toxic fumes Carbon oxides. Nitrogen oxides (NOx). Sulfur oxides. Barium oxides.

Section 11. Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Product Information

Inhalation	Harmful if inhaled.
Eye Contact	Causes serious eye damage.
Skin Contact	May cause irritation. May cause allergic skin reaction
Ingestion	Harmful if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(oxiranylmethyl)-	= 188 mg/kg (Rat)		
Dipropylene glycol monomethyl ether	= 5230 mg/kg (Rat)	= 9500 mg/kg (Rabbit)	
Kaolin	> 5 g/kg (Rat)		

Sensitization May cause sensitization of susceptible persons. May cause sensitization by skin contact.

Mutagenic Effects	Contains a known or suspected mutagen. May cause genetic defects.
Carcinogenic Effects	No information available.
Reproductive Toxicity	No information available.
Developmental Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Target Organ Effects	Central nervous system (CNS). Eyes. Respiratory system.
Aspiration Hazard	No information available.

Section 12. Ecological information

12.1. Toxicity

Ecotoxicity Effects
Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Dipropylene glycol monomethyl ether		LC50 96 h: > 10000 mg/L static (Pimephales promelas)		LC50 48 h: = 1919 mg/L (Daphnia magna)

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential.

Chemical Name	Log Pow
Dipropylene glycol monomethyl ether	-0.064

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 Disrupters Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(oxiranylmethyl)-	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

IMDG/IMO

14.1. UN-Number	Not regulated.
14.2. Proper Shipping Name	Not regulated.
14.3. Hazard Class	Not regulated.
14.4. Packing Group	Not regulated.
Description	Not applicable.
14.5. Marine Pollutant	None.
14.6. Special Provisions	None.
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	Not regulated.
14.2. Proper Shipping Name	Not regulated.
14.3. Hazard Class	Not regulated.
14.4. Packing Group	Not regulated.
Description	Not applicable.
14.5. Environmental hazard	None.
14.6. Special Provisions	None.

ADR

14.1. UN-Number	Not regulated.
14.2. Proper Shipping Name	Not regulated.
14.3. Hazard Class	Not regulated.
14.4. Packing Group	Not regulated.
Description	Not applicable.
14.5. Environmental hazard	None.
14.6. Special Provisions	None.

ICAO

14.1. UN-Number	Not regulated.
14.2. Proper shipping name	Not regulated.
14.3. Hazard Class	Not regulated.
14.4. Packing Group	Not regulated.
Description	Not applicable.
14.5. Environmental hazard	None.
14.6. Special Provisions	None.

IATA

14.1. UN-Number	Not regulated.
14.2. Proper Shipping Name	Not regulated.
14.3. Hazard Class	Not regulated.
14.4. Packing Group	Not regulated.
Description	Not applicable.
14.5. Environmental hazard	None.
14.6. Special Provisions	None.

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
R46 - May cause heritable genetic damage
R43 - May cause sensitization by skin contact
R41 - Risk of serious damage to eyes
R53 - May cause long-term adverse effects in the aquatic environment

R23/25 - Toxic by inhalation and if swallowed
R48/22 - Harmful: danger of serious damage to health by prolonged exposure if swallowed
R20/22 - Harmful by inhalation and if swallowed
R52/53 - Harmful 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
H301 - Toxic if swallowed
H340 - May cause genetic defects if inhaled
H331 - Toxic if inhaled
H318 - Causes serious eye damage
H317 - May cause an allergic skin reaction
H412 - Harmful to aquatic life with long lasting effects
H373 - May cause damage to organs through prolonged or repeated exposure
H302 - Harmful if swallowed
H332 - Harmful if inhaled

Key literature references and sources for data
www.ChemADVISOR.com/

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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