

Issuing Date 24-May-2015

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Revision Number 1

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

### 1.1. Product identifier

Product Code(s) 400350

Product Name CA-40 GP01

Contains Bisphenol A - Epichlorohydrin polymer

### 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
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## Section 2. Hazards identification

### 2.1. - Classification of the substance or mixture

#### REGULATION (EC) No 1272/2008

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Chronic Aquatic Toxicity	Category 3

#### Physical Hazards

None

### 2.2. Label Elements



Signal Word

Warning

**Hazard Statements**

H315 - Causes skin irritation  
 H317 - May cause an allergic skin reaction  
 H319 - Causes serious eye irritation  
 H412 - Harmful to aquatic life with long lasting effects

**Precautionary Statements**

P362 - Take off contaminated clothing and wash before reuse  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray  
 P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P273 - Avoid release to the environment

**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 %	EU - GHS Substance Classification	REACH No.
Barium sulfate	Present	7727-43-7	30-40		No data available
Bisphenol A - Epichlorohydrin polymer	500-033-5	25068-38-6	<10	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)	No data available
Dipropylene glycol monomethyl ether	Present	34590-94-8	1-5		No data available
Naphtha (petroleum), heavy aromatic	Present	64742-94-5	1-5	Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available

**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**

<b>General Advice</b>	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.
<b>Eye Contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.
<b>Inhalation</b>	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** May cause sensitization of susceptible persons. Treat symptomatically.

### **Section 5. Fire-fighting measures**

#### **5.1. Extinguishing media**

##### **Suitable Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.

##### **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**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

#### **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**

Avoid contact with skin, eyes and clothing. 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.

#### **6.2. Environmental precautions**

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

#### **6.3. Methods and materials for containment and cleaning up**

Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. 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**

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.

##### **Hygiene Measures**

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

#### **7.2. Conditions for safe storage, including any incompatibilities**

Keep out of the reach of children. 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 <sup>3</sup> STEL: 12 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup> TWA: 4 mg/m <sup>3</sup>		TWA: 10 mg/m <sup>3</sup>	TWA: 4 mg/m <sup>3</sup> TWA: 1.5 mg/m <sup>3</sup> Ceiling / Peak: 4 mg/m <sup>3</sup>
Dipropylene glycol monomethyl ether 34590-94-8	S* TWA 50 ppm TWA 308 mg/m <sup>3</sup>	STEL: 150 ppm STEL: 924 mg/m <sup>3</sup> TWA: 50 ppm TWA: 308 mg/m <sup>3</sup> Skin	TWA: 50 ppm TWA: 308 mg/m <sup>3</sup>	S* TWA: 50 ppm TWA: 308 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 310 mg/m <sup>3</sup> Ceiling / Peak: 50 ppm Ceiling / Peak: 310 mg/m <sup>3</sup>
Component	Italy	Portugal	The Netherlands	Finland	Denmark
Barium sulfate 7727-43-7 ( 30-40 )		TWA: 10 mg/m <sup>3</sup>			
Dipropylene glycol monomethyl ether 34590-94-8 ( 1-5 )	TWA: 50 ppm TWA: 308 mg/m <sup>3</sup> Skin	STEL: 150 ppm TWA: 100 ppm	TWA: 300 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 310 mg/m <sup>3</sup> Skin	TWA: 50 ppm TWA: 309 mg/m <sup>3</sup> Skin
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Barium sulfate 7727-43-7				TWA: 0.5 mg/m <sup>3</sup> STEL: 1.5 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>
Dipropylene glycol monomethyl ether 34590-94-8	Skin STEL 100 ppm STEL 614 mg/m <sup>3</sup> TWA: 50 ppm TWA: 307 mg/m <sup>3</sup>	STEL: 50 ppm STEL: 300 mg/m <sup>3</sup> TWA: 50 ppm TWA: 300 mg/m <sup>3</sup>	STEL: 480 mg/m <sup>3</sup> TWA: 240 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 300 mg/m <sup>3</sup> Skin STEL: 75 ppm STEL: 375 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 308 mg/m <sup>3</sup> Skin

**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

Tightly fitting safety goggles.

##### Skin and Body Protection

Lightweight protective clothing.

##### Hand Protection

Protective gloves.

##### Respiratory Protection

In case of inadequate ventilation wear respiratory protection. If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

**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

<b>Physical State</b>	Viscous liquid	<b>Appearance</b>	Cream
<b>Odor</b>	Mild Solvent		

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
<b>pH</b>	No data available	None known
<b>Melting Point/Range</b>	No data available	None known
<b>Boiling Point/Boiling Range</b>	No data available	None known
<b>Flash Point</b>	105 °C	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Vapor Pressure</b>	No data available	None known
<b>Vapor Density</b>	No data available	None known
<b>Relative Density</b>	1.52	at 20 °C
<b>Water Solubility</b>	No data available	None known
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient: n-octanol/water</b>	No data available	None known
<b>Autoignition Temperature</b>	No data available	None known
<b>Decomposition Temperature</b>	No data available	None known
<b>Viscosity</b>	No data available	None known
<b>Flammable Properties</b>	Combustible material: may burn but does not ignite readily.	
<b>Explosive Properties</b>	No data available	
<b>Oxidizing Properties</b>	No data available	

**9.2. Other information**

<b>VOC Content (%)</b>	14
<b>VOC (g/l)</b>	217
<b>Flammability Limits in Air</b>	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.

**10.5. Incompatible materials**

Oxidizing agents.

**10.6. Hazardous decomposition products**Carbon dioxide (CO<sub>2</sub>). 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**

Causes serious eye irritation.

**Skin Contact**

Causes skin irritation. May cause allergic skin reaction

**Ingestion**

May be harmful if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Bisphenol A - Epichlorohydrin polymer	11400 mg/kg ( Rat )	-	-
Dipropylene glycol monomethyl ether	= 5230 mg/kg ( Rat )	= 9500 mg/kg ( Rabbit )	
Naphtha (petroleum), heavy aromatic	> 5000 mg/kg ( Rat )	> 2 mL/kg ( Rabbit )	> 590 mg/m <sup>3</sup> ( Rat ) 4 h

<b>Sensitization</b>	May cause sensitization of susceptible persons. May cause sensitization by skin contact. May cause an allergic skin reaction.
<b>Mutagenic Effects</b>	No information available.
<b>Carcinogenic Effects</b>	No information available.
<b>Reproductive Toxicity</b>	No information available.
<b>Developmental Toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Target Organ Effects</b>	Central nervous system (CNS). Eyes. Respiratory system.
<b>Aspiration Hazard</b>	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)
Dipropylene glycol monomethyl ether		LC50 96 h: > 10000 mg/L static (Pimephales promelas)		LC50 48 h: = 1919 mg/L (Daphnia magna)
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)

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential.

Chemical Name	Log Pow
Dipropylene glycol monomethyl ether	-0.064
Naphtha (petroleum), heavy aromatic	2.9 - 6.1

### 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		

## Section 13. Disposal considerations

**13.1. Waste treatment methods**

<b>Waste from Residues / Unused Products</b>	Dispose of in accordance with local regulations.
<b>Contaminated Packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>Other Information</b>	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

## Section 14. Transport information

**IMDG/IMO**

<b>14.1. UN-Number</b>	Not regulated.
<b>14.2. Proper Shipping Name</b>	Not regulated.
<b>14.3. Hazard Class</b>	Not regulated.
<b>14.4. Packing Group</b>	Not regulated.
<b>Description</b>	Not applicable.
<b>14.5. Marine Pollutant</b>	None.
<b>14.6. Special Provisions</b>	None.
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	No information available.

**RID**

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

**ADR**

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

**ICAO**

<b>14.1. UN-Number</b>	Not regulated.
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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 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  
 H304 - May be fatal if swallowed and enters airways  
 H412 - Harmful to aquatic life with long lasting effects  
 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/](http://www.ChemADVISOR.com/)

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Revision Note (M)SDS sections updated: 3.

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