TAIYO

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) 400432

Product Name CA-90 FXT

Contains Formaldehyde, polymer with (chloromethyl) oxirane and phenol, Biphenyl, 4,4`-bis-3,3,5,5-tetramethyl-, 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 775-885-9959

Number

Europe 112

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
Carcinogenicity	Category 2
Chronic Aquatic Toxicity	Category 2

Physical Hazards

None

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

The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

Symbol(s) Xn - Harmful

R-code(s) Carc. cat. 3;R40 - Xi;R36/38 - R43 - R52-53

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

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

H351 - Suspected of causing cancer

H411 - Toxic 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

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

P273 - Avoid release to the environment

P391 - Collect spillage

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.
Formaldehyde, polymer with (chloromethyl) oxirane and phenol		9003-36-5	20-30	-	Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Eye Irrit. 2 (H319) Aquatic Chronic 2 (H411)	No data available
Barium sulfate	Present	7727-43-7	20-30	Xn; R20/22		No data available
Biphenyl, 4,4`-bis-3,3,5,5-tetramethyl	413-900-7	85954-11-6	10-20	Carc.Cat.3; R40 R43	Carc. 2 (H351) Skin Sens. 1 (H317)	No data available
Bisphenol A - Epichlorohydrin polymer	500-033-5	25068-38-6	7-13	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

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 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.

Skin ContactWash off immediately with soap and plenty of water removing all contaminated clothes and

shoes. If skin irritation persists, call a physician.

Ingestion Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an

unconscious person. If symptoms persist, call a physician.

Inhalation Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. If

symptoms persist, call a physician.

Protection of First-aidersUse 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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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 None in particular.

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.

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.

6.3. Methods and materials for containment and cleaning up

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

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. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Wear personal protective equipment. Do not breathe vapors or spray mist. Use only in area provided with appropriate exhaust ventilation.

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

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		STEL: 30 mg/m ³		TWA: 10 mg/m ³	TWA: 4 mg/m ³
7727-43-7		STEL: 12 mg/m ³		-	TWA: 1.5 mg/m ³
		TWA: 10 mg/m ³			Ceiling / Peak: 4
		TWA: 4 mg/m ³			mg/m³
Component	Italy	Portugal	The Netherlands	Finland	Denmark
Barium sulfate		TWA: 10 mg/m ³			
7727-43-7 (20-30)					
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Barium sulfate				TWA: 0.5 mg/m ³	TWA: 2 mg/m ³
7727-43-7				STEL: 1.5 mg/m ³	STEL: 6 mg/m ³

Derived No Effect Level
Predicted No Effect Concentration
(PNEC)

No information available No information available.

Ensure adequate ventilation, especially in confined areas.

8.2. Exposure controls

Engineering Measures

Personal protective equipment

Eye ProtectionSafety 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 Liquid Appearance Cream

Odor Mild Solvent

<u>Property</u> <u>Values</u> <u>Remarks/ - Method</u>

No data available None known рH Melting Point/Range No data available None known **Boiling Point/Boiling Range** No data available None known 100 °C Flash Point None known No data available **Evaporation rate** None known Flammability (solid, gas) No data available None known

Vapor Pressure No data available None known **Vapor Density** No data available None known 1.39 **Relative Density** None known **Water Solubility** No data available None known Solubility in other solvents No data available None known Partition coefficient: n-octanol/waterNo data available None known **Autoignition Temperature** No data available None known No data available **Decomposition Temperature** None known No data available **Viscosity** None known

Flammable Properties Combustible material: may burn but does not ignite readily.

Explosive Properties No data available

Explosive PropertiesNo data availableOxidizing PropertiesNo data available

9.2. Other information

VOC Content (%) 2 VOC (g/l) 28

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.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx).

Section 11. Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Product Information

Inhalation There is no data available for this product.

Eve Contact Causes serious eve irritation.

Skin Contact Causes skin irritation. May cause allergic skin reaction

Ingestion There is no data available for this product.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Formaldehyde, polymer with (chloromethyl) oxirane and phenol	> 2 g/kg (Rat)	> 400 mg/kg (Rat)	
Bisphenol A - Epichlorohydrin polymer	11400 mg/kg (Rat)	-	-

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

Mutagenic Effects No information available.

Carcinogenic Effects Contains a known or suspected carcinogen. May cause cancer.

Reproductive Toxicity
Developmental Toxicity
STOT - single exposure
STOT - repeated exposure
Target Organ Effects
Aspiration Hazard
No information available.
No information available.
Eyes. Respiratory system.
No information available.

Section 12. Ecological information

12.1. Toxicity

Ecotoxicity Effects

Toxic to aquatic life with long lasting effects

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential.

No information available.

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	EU - Endocrine Disruptors -	Japan - Endocrine Disruptor
	Candidate List	Evaluated Substances	Information
Bisphenol A - Epichlorohydrin polymer	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.

application specific. Waste codes should be assigned by the user based on the application

for which the product was used.

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** II

Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A -

Epichlorohydrin polymer; Formaldehyde, polymer with (chloromethyl) oxirane and phenol),

9, III

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-NumberUN3082

14.2. Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.

14.3. Hazard Class 9 **14.4. Packing Group** II

DescriptionUN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A -

Epichlorohydrin polymer; Formaldehyde, polymer with (chloromethyl) oxirane and phenol),

9. III

14.5. Environmental hazardyes14.6. Special ProvisionsNone.Classification CodeM6

ADR

14.1. UN-Number UN3082

14.2. Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.

14.3. Hazard Class9ADR/RID-Labels914.4. Packing GroupIII

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Revision Date 24-May-2015

Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A -

Epichlorohydrin polymer; Formaldehyde, polymer with (chloromethyl) oxirane and phenol),

9, III, (E)

14.5. Environmental hazardyes14.6. Special ProvisionsNone.Classification CodeM6Tunnel 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

Description UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III

14.5. Environmental hazard yes14.6. Special Provisions None.

<u>IATA</u>

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 |||

Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A -

Epichlorohydrin polymer; Formaldehyde, polymer with (chloromethyl) oxirane and phenol),

9, III

14.5. Environmental hazardyes14.6. Special ProvisionsNone.ERG Code9L

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

R40 - Limited evidence of a carcinogenic effect

R43 - May cause sensitization by skin contact

R36/38 - Irritating to eyes and skin

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R20/22 - Harmful by inhalation and if swallowed

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

H351 - Suspected of causing cancer

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

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End of Safety Data Sheet