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## Safety Data Sheet

### 1. Product and Company Identification

Product name : FLEP-60

Company Identification :

Name of supplier :

Toray Fine Chemicals Co., Ltd.

Address :

2-3-1, Kanda-Sudacho, Chiyoda-ku, Tokyo 101-0041, Japan

Division :

THIOKOL Sales & Marketing Sect.

Specialty Polymers Sales & Marketing Dept.

Phone : +81(3)6859-1251

FAX : +81(3)6687-9763

URL : <http://www.torayfinechemicals.com>

Emergency phone :

+81(3)6859-1251

Recommended use of the chemical and restrictions on use :

### 2. Hazards Identification

GHS Classification :

Hazard Classification :

Explosives : Not applicable

Flammable gases : Not applicable

Aerosols : Not applicable

Oxidizing gases : Not applicable

Gases under pressure : Not applicable

Flammable liquids : Not Classified

Flammable solids : Not applicable

Self-reactive substances : Classification not possible

Pyrophoric liquids : Not Classified

Pyrophoric solids : Not applicable

Self-heating substances : Classification not possible

Substances which, in contact with water, emit flammable gases : Not applicable

Oxidizing liquids : Not applicable

Oxidizing solids : Not applicable

Organic peroxides : Not applicable

Corrosive to metals : Classification not possible

Acute toxicity (Oral) : Classification not possible

Acute toxicity (Dermal) : Classification not possible

Acute toxicity (Inhalation : Gases) : Not applicable

Acute toxicity (Inhalation : Vapors) : Classification not possible

Acute toxicity (Inhalation : Dust / Mist) : Classification not possible

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Classification not possible

Respiratory or skin sensitization : Classification not possible

Skin sensitization : Category 1

Germ cell mutagenicity : Classification not possible

Carcinogenicity : Category 1A

Reproductive toxicity : Classification not possible

Effects on or via lactation : Classification not possible

Specific target organ systemic toxicity - Single Exposure : Classification not possible

Specific target organ systemic toxicity - Repeated Exposure : Classification not possible

Aspiration hazards : Classification not possible

Acute hazards to the aquatic environment : Category 2

Chronic hazards to the aquatic environment : Category 2

Hazardous to the ozone layer : Classification not possible

Label element :

Pictogram or Symbol :



Signal Word : DANGER

Hazard statement :

[H315] Causes skin irritation

[H317] May cause allergic skin reaction

[H350] May cause cancer

[H401] Toxic to aquatic life

[H411] Toxic to aquatic life with long lasting effects

Precautionary statement :

Prevention

[P201] Get the handling manual before use.

[P280] Wear protection gloves / protection clothes / protection glasses / protection mask.

Response

If exposed or may be exposed [P308] :

[P313] Consult your doctor for medical treatment.

If skin irritation or rash appears [P333] :

[P313] Consult your doctor for medical treatment.

Storage

[P405] Store with keeping locked.

Keep it in 30 degrees Celsius or less.

Disposal

[P501] Dispose contents / container in accordance with local / regional / national / international regulation.

### 3. Composition/Information on Ingredients

Substance / Mixture : Mixture

Chemical name :

Polysulfide modified epoxy resin

Common chemical name

Reaction products of a polysulfide polymer and the epoxy resin

Composition : 40-50%

CAS No. : Confidential  
ENCS No. : Confidential  
ISHL No. : -  
TSCA : Registry

Common chemical name  
Epoxy resin  
Composition : 50-60%  
CAS No. : Confidential  
ENCS No. : Confidential  
ISHL No. : -  
TSCA : Registry

Harmful impurity :  
Formaldehyde  
Composition : 0.3%[Average][0.1-0.5%]

#### 4. First Aid

IF ON SKIN [P302] :

[P310] Immediately call a POISON CENTER or a doctor.

[P352] Wash with soap and plenty of water.

[P360] Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

If exposed or concerned [P308] :

[P313] Get medical advice/attention.

If skin irritation [P332] :

[P313] Get medical advice/attention.

If skin irritation or a rash occurs [P333] :

[P313] Get medical advice/attention.

the instructions

[P362][P364] Take off contaminated clothing. And wash it before reuse.

[P391] Collect spillage.

#### 5. Fire-Fighting Measures

Suitable Extinguishing media :

Dry chemical powder, carbon dioxide or dry sand should be used for small fire.

Foam extinguisher should be used for big fire to shut out air.

Dry chemical powder, form, carbon dioxide or dry sand should be used.

Prohibited extinguishing media :

For cooling, mist water can be used, but Do NOT use direct water jet.

Specific Hazards under fire :

In case of fire or explosion, do not inhale smoke or vapor.

Toxic smoke, steam formed in the case of gas : Carbon monoxide, sulfur oxide, hydrogen chloride, aldehyde, small molecule hydrocarbon.

Specific fire-fighting measures :

Extinguish from the windward side of fire with safe distance.

Remove ignition source if possible to do so without danger.

Chill container with mist water.

Be careful not to leak the material which would affect environment during firefighting measures.

Evacuate people to safe area except firefighting personnel.

#### Protection of fire-fighters :

Firefighters should wear self-contained breathing protector with full face piece operated positive pressure mode.

#### 6. Accidental Release Measures

##### Notes for person :

Ventilate until collection of material is completed.

Forbid unauthorized personnel to enter.

Wear proper protective equipment.

##### Notes for environmental impact :

Prevent effluence from entering sewers, drains or lower areas.

##### Methods and materials for containment and cleaning up :

In case of small spill, absorb it into sand or sawdust.

For large spill, dike for later disposal.

Shut off all ignition sources; No flares, smoking or flames in area.

#### 7. Handling and Storage

##### Handling :

##### Preventive measures :

[P201] Obtain special instructions before use.

[P202] Do not handle until all safety precautions have been read and understood.

[P261] Avoid breathing dust/fumes/gas/mist/vapours/spray.

hands

[P272] Contaminated work clothing should not be allowed out of the workplace.

[P273] Avoid release to the environment.

[P280] Wear protective gloves/protective clothing/eye protection/face protection.

##### Storage :

##### Proper storage condition :

[P405] Store locked up.

[P501] Dispose of contents/container in accordance with local / regional / national /international regulation.

Keep it in 30degrees Celsius or less.

#### 8. Exposure Control / Personal Protection

##### Engineering measures :

Handle this material only in a totally sealed equipment.

Handle under well-ventilated condition.

Make available emergency shower and eye wash in the work area.

Atmospheric levels should be maintained under the exposure guideline.

##### Control value :

Please comply with your country or local regulations on this Product.

##### Adopted value :

Please comply with your country or local regulations on this Product.

##### Personal protective equipment :

##### Hand protection :

Protective gloves

##### Eye protection :

Safety glasses

Safety goggles

##### Skin and body protection :

Protective clothes

Proper sanitary measures :

Do NOT eat, drink or smoke at work.

Wash hands with soap after use.

## 9. Physical and Chemical Properties

Physical properties :

Appearance : liquid

Color :

Pale yellow

Odor : Characteristic odor

Phase change temperature :

Boiling point : Not Available

Melting point : Not Available

Flash point :

>200

Ignition temperature : Not Available

Explosion :

Not Available

Explosion upper limit : Not Available

Explosion lower limit : Not Available

Vapor pressure :

Not Available

Vapor density :

Not Available

Specific Gravity / Density :

1.23(20 )

Viscosity :

15Pa·s(25 )

Solubility :

Solubility in water :

Insolubility

Solubility in solvents :

Soluble in Toluene and Xylene.

Octanol / Water Partion Coefficient (Log Pow) :

Not Available

Other Properties :

Not Available

## 10. Stability and Reactivity

Possibility of hazardous reactions :

Not Available

Conditions to be avoided :

Not Available

Materials to be avoided :

A coexistence prohibition material:

Oxidizer, strong Lewis acid, strong base, organic base.

## 11. Toxicological Information

Acute toxicity :

Not Available

Skin corrosion / irritation :

Category 2

Serious eye damage / eye irritation :

Not Available

Respiratory or skin sensitization :

Category 1

Germ cell mutagenicity :

Not Available

Carcinogenic effects :

Category 1

Toxicity for reproduction :

Not Available

Effects on or via lactation :

Not Available

Specific target organ / systemic toxicity (Single exposure) :

Not Available

Specific target organ / systemic toxicity (Repeated exposure) :

Not Available

Aspiration hazards :

Not Available

## 12. Ecological Information

Ecotoxicity :

Acute hazards to the aquatic environment : Category 2

Chronic hazards to the aquatic environment : Category 2

Biodegradability : Not Available

Bioaccumulation : Not Available

Mobility in soil : Not Available

Hazardous to the ozone layer :

Classification not possible

## 13. Disposal Considerations

Dispose contents / container in accordance with local / regional / national / international regulations.

This products and their containers must be disposed of / treated in accordance with the related regulations, or must be entrusted to the licensed company by clarifying the right data.

Regulation about cautions on waste in Japan :

Refer to Regulatory Information in chapter 15.

## 14. Transport Information

UN No. : 3082

Hazard Class : Class9 Miscellaneous dangerous

UN Proper shipping name :

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Packing group :

Regulation in Japan :

Refer to Regulatory Information in chapter 15.

Specific safety measures and conditions on transport :

loading up the cargo,not to be collapse, fall-down,damaged

ERG Guide No.

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## 15. Regulatory Information

Please comply with your country or local regulations on this Product.

## 16. Other Information / References

General disclaimer :

To the best of our knowledge, the information contained herein is accurate. However, we can not assume any liability whatsoever for the accuracy or completeness of the information contained herein. The users are responsible for final decisions on suitability of any materials. All materials may present unknown hazards and should be used in caution. Although certain hazards are described herein, we cannot guarantee that there are all the hazards which exist.

References :

<http://www.safe.nite.go.jp/japan/db.html>

<http://www.safe.nite.go.jp/ghs/list.html>

[http://www.jaish.gr.jp/anzen\\_pg/GHS\\_MSD\\_FND.aspx](http://www.jaish.gr.jp/anzen_pg/GHS_MSD_FND.aspx)