

## Safety Data Sheets

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### 1. Product and Company Identification

Product name :Sealer #555(Cartridge)

Name of supplier :SOLAR CO., LTD.

Address :1-7, Nunobiki-cho-2-chome, Chuo-ku, Kobe, Hyogo-Pref. 651-0097 JAPAN

Division :R & D DEPT.

Phone :+81-790-49-2366

FAX :+81-790-49-1588

Product code(SDS NO) :EN770282-1

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### 2. Hazards identification

GHS classification and label elements of the product

GHS classification

#### HEALTH HAZARDS

Acute toxicity Oral : Category 5

Acute toxicity inhalation : Category 5

Skin corrosion/irritation : Category 3

Carcinogenicity : Category 2

Reproductive toxicity : Category 1B

Specific target organ toxicity-single exposure : Category 1

Specific target organ toxicity-repeated exposure : Category 1

#### ENVIRONMENT HAZARDS

Hazardous to the aquatic environment-acute toxicity : Category 3



Signal word : Danger

#### HAZARD STATEMENT

May be Harmful if swallowed.

May be Harmful if inhaled.

Causes mild skin irritation.

Suspected of causing cancer

May damage fertility or the unborn child

Causes damage to organs after single exposure.

Causes damage to organs following repeated exposure.

Harmful to aquatic life

#### PRECAUTIONARY STATEMENT

##### Prevention

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid release to the environment.

Use personal protective equipment as required.

##### Response

Get medical advice/attention if you feel unwell.

IF exposed or concerned: Get medical advice/attention.

If skin irritation occurs: Get medical advice/attention.

##### Storage

Store locked up.

## Disposal

Dispose of contents/container in accordance with local/national regulation.

## 3. Composition/Information on Ingredients

Substance/Preparation :Preparation

Ingredient name	content(%)	CAS No.	PRTR law No, Japan
Urethan prepolymer	30 - 35	Non Public	-
Plasticizer	25 - 30	Non Public	-
Filler,Pigment	30 - 40	Non Public	-
Titanium dioxide	4 - 5	13463-67-7	-
Xylene (Mixture of isomers)	2.4	1330-20-7	-
Ethylbenzene	1.6	100-41-4	-
Solvent(Others)	1.0	Non Public	-
Additive,Catalyst	1.0	Non Public	-

## 4. First-aid measures

## IF INHALED

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.

## IF ON SKIN(or hair)

Never use solvent or thinner.

Wash with plenty of soap and water.

If you observe unusual symptom, have irritation/pain and/or feel unwell, seek medical advice.

## IF IN EYES :

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

## IF SWALLOWED

Rinse mouth.

Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor/physician.

## 5. Fire-fighting measures

## Suitable extinguishing media

In case of fire, use water mist, foam, dry powder or CO2.

## Specific fire-fighting measures

Use appointed fire extinguisher.

Remove flammable matters quickly from nearby.

Apply water from a safe distance to cool and protect surrounding area.

## Special protective equipment and precautions for fire-fighters

Fire extinguishing work has to be done from windward.

Wear proper protective equipment.

## 6. Accidental Release Measures

## Personnel precautions, protective equipment and emergency procedures

Ventilate area after material pick up is complete.

Wear proper protective equipment.

Keep unauthorized personnel away.

## Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

## Methods and materials for neutralization, containment and cleaning up

Place in a covered container.

- Use non-sparking tools to collect absorbed material.
- Preventive measures for secondary accident
- Prepare extinguishers before catching fire.

## 7. Handling and Storage

### Precautions for safe handling

#### Preventive measures

- Use personal protective equipment as required.
- Take precautionary measures against static discharge.

### Safety Measures/Incompatibility

- Handle in good ventilation.
- Do not handle until all safety precautions have been read and understood.

### Conditions for safe storage, including any incompatibilities

#### Recommendation for storage

- Keep container tightly closed.
- Protect from sunlight. Store in a well-ventilated place.
- Keep container dry.

## 8. Exposure Controls/Personal Protection

### Control parameters e.g. occupational exposure limit values or biological limit values

#### Control value

- (Xylene (Mixture of isomers))
- Japan control value (2004) <= 50ppm
- (Ethylbenzene)
- Japan control value (2012) <= 20ppm

#### Adopted value

- (Xylene (Mixture of isomers))
- JSOH(2001) 50ppm; 217mg/m<sup>3</sup>
- (Ethylbenzene)
- JSOH(2001) 50ppm; 217mg/m<sup>3</sup>
- (Ethylbenzene)
- ACGIH(1998) TWA: 100ppm
- STEL: 125ppm (URT irr; CNS impair; eye irr)
- (Xylene (Mixture of isomers))
- ACGIH(1992) TWA: 100ppm
- STEL: 150ppm (URT & eye irr; CNS impair)
- (Titanium dioxide)
- ACGIH(1992) TWA: 10mg/m<sup>3</sup> (LRT irr)

### Appropriate engineering controls

- Do not use in areas without adequate ventilation.
- Exhaust/ventilator should be available.

### Protective equipment

#### Respiratory protection

- Wear respiratory protection.

#### Hand protection

- Wear protective gloves.

#### Eye protection

- Wear eye/face protection.

#### Skin and body protection

- Wear protective gloves/clothing

## 9. Physical and Chemical Properties

### Physical properties

- Appearance :paste

Color :white  
Flash point :64.6 (Seta closed style)  
Specific gravity :ca1.26

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## 10. Stability and Reactivity

### Stability

Stable under normal storage/handling conditions.

### Conditions to avoid

If product reacts with water within the sealed container,form CO<sub>2</sub> and pressure may rise.

### Incompatible materials

Reactions possible with : amines, alcohol, water

### Hazardous decomposition products

In the event of fire the following can be released:

Carbon monoxide(CO), Carbon dioxide(CO<sub>2</sub>), Nitrogen oxides(NO<sub>x</sub>)

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## 11. Toxicological Information

Symptoms related to the physical, chemical and toxicological characteristics

### Acute toxicity

#### Oral toxicity component(s) data

(Ethylbenzene)

rat LD50=3500 mg/kg (EHC 186, 1996)

(Xylene (Mixture of isomers))

rat LD50=3500 mg/kg (EPA\_J assessment vol.1, 2002)

#### Inhalation toxicity component(s) data

(Ethylbenzene)

vapor : rat LC50=4000 ppm (ATSDR, 1999)

#### Labor standard law, Japan; Toxic

Xylene (Mixture of isomers)

### Irritant properties

#### Skin corrosion/Irritation component(s) data

(Xylene (Mixture of isomers))

rabbit 500 mg/24H ; MODERATE

(Titanium dioxide)

human 0.3mg/3D-I ; MILD

(Ethylbenzene)

rabbit 15 mg/24H open ; MILD

### Serious eye damage /irritation

#### Eye damage/irritation component(s) data

(Xylene (Mixture of isomers))

rabbit 87 mg ; MILD rabbit 5 mg/24H ; SEVERE

### Carcinogenic effects

(Ethylbenzene)

IARC-Gr.2B ; Possibly carcinogenic to humans.

(Titanium dioxide)

IARC-Gr.2B ; Possibly carcinogenic to humans.

(Xylene (Mixture of isomers))

IARC-Gr.3 ; Not Classifiable as a Human Carcinogen.

(Titanium dioxide)

ACGIH-A4(1992) : Not Classifiable as a Human Carcinogen

(Ethylbenzene)

ACGIH-A3(1998) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

(Xylene (Mixture of isomers))

ACGIH-A4(1992) : Not Classifiable as a Human Carcinogen

(Ethylbenzene)

JSOH-2B; Insufficient Evidence of Carcinogenicity for Humans

Toxicity for reproduction

(Xylene (Mixture of isomers)) IRIS, 2003

(Ethylbenzene) SIDS, 2005

Delayed and immediate effects and also chronic effects from short- and long-term exposure

Specific target organ toxicity (single exposure cat.1)

(Xylene (Mixture of isomers)) respiratory apparatus/system; liver; CNS; kidney ( CERI/NITE hazard assessment, 2004 )

Specific target organ toxicity (single exposure cat.2)

(Ethylbenzene) CNS ( CERI hazard data book, 1998 )

Specific target organ toxicity (single exposure cat.3 respiratory irritation)

(Ethylbenzene) Respiratory tract irritation ( CERI hazard data book, 1998 )

Specific target organ toxicity (single exposure cat.3 drowsiness/dizziness)

(Xylene (Mixture of isomers)) Narcosis ( CERI/NITE hazard assessment, 2004 )

Specific target organ toxicity (repeated exposure cat.1)

(Xylene (Mixture of isomers)) respiratory apparatus/system; nerve/nervous system ( CERI/NITE hazard assessment, 2004 )

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## 12. Ecological Information

Ecotoxicity

Acuatic toxicity

Harmful to aquatic life

(Ethylbenzene)

Crustacea (Penaeus aztecus) LC50=0.4mg/L/96hr ( CERI/NITE, 2006)

(Xylene (Mixture of isomers))

Fish (rainbow trout) LC50=3.3mg/L/96hr ( CERI\_NITE, 2005)

(Titanium dioxide)

Crustacea (Daphnia magna) EC50 > 1000mg/L/48hr ( AQUIRE, 2003)

Water solubility

(Ethylbenzene)

0.015 g/100 ml (20 C) (ICSC, 2007)

(Titanium dioxide)

none (HSDB, 2004)

Persistence and degradability

(Ethylbenzene)

Easily degrade and rapidly vaporize ( SIDS, 2005)

(Xylene (Mixture of isomers))

BOD\_Degradation : 39% (CERI hazard data book,2005)

Bioaccumulative potential

(Ethylbenzene)

log Kow=3.15 (PHYSROP Database, 2005)

(Xylene (Mixture of isomers))

log Pow=3.16 (PHYSROP Database, 2005)

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## 13. Disposal Considerations

Disposal methods

Avoid release to the environment (- if this is not the intended use).

Dispose of contents/container in accordance with local/national regulation.

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## 14. Transport Information

UN No, UN CLASS

Not applicable to UN NO.

Special precautions in connection with transport or conveyance

Follow instruction in Handling & Storage.

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15. Regulatory Information

Industrial Safety and Health law, Japan

Specified chemical substances Gr.2 : Ethylbenzene

Harmful substances to be indicated : Ethylbenzene; Xylene (Mixture of isomers)

Chemical name et al should be informed : Ethylbenzene; Xylene (Mixture of isomers); Titanium dioxide

PRTR law, Japan

Listed chemicals Gr.1 : Ethylbenzene; Xylene (Mixture of isomers)

Chemical Substances Control Law, Japan

Priority Assessment Chemical Substances :Ethylbenzene

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16. Other information

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (4th ed., 2011), UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 17th edit. UN

2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)

2011 TLVs and BEIs. (ACGIH)

<http://monographs.iarc.fr/monoeval/grlist.html>

Supplier's data/information

Other information

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