

date of issue : 24/06/2011

## Safety Data Sheet

### 1. Product and Company Identification

Product name :Color Putty #101 White

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(MSDS NO) :EN401400-3

### 2. Hazards Identification

GHS classification and label elements of the product

GHS classification

#### PHYSICAL HAZARDS

Flammable solid : Category 1

#### HEALTH HAZARDS

Skin corrosion/irritation : Category 2

Eye damage /eye irritation : Category 2

Germ cell mutagenicity : Category 2

Carcinogenicity : Category 2

Reproductive toxicity : Category 1B

Specific target organ toxicity-single exposure : Category 1

Specific target organ toxicity - single exposure; Respiratory tract irritation Category 3

Specific target organ toxicity-repeated exposure : Category 1

#### ENVIRONMENT HAZARDS

Hazardous to the aquatic environment-acute toxicity : Category 3



Signal word : Danger

#### HAZARD STATEMENT

Flammable solid

Causes skin irritation.

Causes eye irritation

Suspected of causing genetic defects

Suspected of causing cancer

May damage fertility or the unborn child

Causes damage to organs after single exposure.

May cause respiratory irritation

Causes damage to organs following repeated exposure.

Harmful to aquatic life

#### PRECAUTIONARY STATEMENT

##### Prevention

Obtain special instructions before use.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Use explosion-proof electrical/ventilating/lighting equipment.

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.

Use only outdoors or in a well-ventilated area.  
 Avoid release to the environment.  
 Wear protective gloves/eye protection/face protection.  
 Use personal protective equipment as required.

**Response**

Get medical attention/advice if you feel unwell.  
 Take off contaminated clothing and wash before reuse.  
 IF ON SKIN: Wash with plenty of soap and water.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 IF exposed: Call a POISON CENTER or doctor/physician.  
 If skin irritation occurs: Get medical advice/attention.  
 If eye irritation persists: Get medical advice/attention.  
 In case of fire: Use appointed fire extinguisher.

**Storage**

Store locked up.  
 Store in well-ventilated place. Keep container tightly closed.

**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
Unsaturated polyester resin	20 - 25	Non Public	
Styrene	15.3	100-42-5	1-240
Cobalt naphthenate	<1.0	61789-51-3	
Titanium dioxide	20 - 25	13463-67-7	
Amorphous silica	1 - 5	7631-86-9	
Talc	25 - 30	14807-96-6	
Extender	5 - 10	Non Public	
Additive	0.1 - 1	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**

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 CO<sub>2</sub>.

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.

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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.

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7. Handling and Storage

Precautions for safe handling

Preventive measures

Use personal protective equipment as required.

Take precautionary measures against static discharge.

Safety treatments

Used waste or spray-dust has to be dipped in water until disposition.

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.

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8. Exposure Control/Personal Protection

Control value

(Styrene)

Japan control value (2004) <= 20ppm

Adopted value

(Styrene)

JSOH(1999) 20ppm; 85mg/m<sup>3</sup> (dermal)

(Cobalt naphthenate)

JSOH(1992) 0.05mg-Co/m<sup>3</sup>

(Styrene)

ACGIH(1996) TWA: 20ppm

STEL: 40ppm (CNS impair; URT irr; periph neuropathy)

(Titanium dioxide)

ACGIH(1992) TWA: 10mg/m<sup>3</sup> (LRT irr)

(Talc)

ACGIH(1980) TWA: 2mg/m<sup>3</sup>(E,R) (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

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**9. Physical and Chemical Properties**

## Physical properties

Appearance :paste

Color :white

Flash point :32°C (Seta closed style) (on the analogy of similar article/Styrene)

Specific gravity :ca 1.76

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**10. Stability and Reactivity**

## Stability

Stable under normal storage/handling conditions.

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**11. Toxicological Information**

Symptoms related to the physical, chemical and toxicological characteristics

## Acute toxicity

## Oral toxicity component(s) data

(Styrene)

rat LD50 2,650 mg/kg (RTECS (2005))

(Cobalt naphthenate)

rat 3900 mg/kg (JPMA 5th ed.)

## Inhalation toxicity component(s) data

(Styrene)

vapor : rat LC50=2770 ppm/4hr (cal.)

Labor standard law, Japan; Toxic

Styrene; Cobalt naphthenate

## Irritant properties

## Skin corrosion/Irritation component(s) data

(Styrene)

rabbit 500 mg open ; MILD

(Titanium dioxide)

human 0.3mg/3D-I ; MILD

No Allergenic and sensitizing effects data available

## Mutagenic effects

(Styrene) ID151(2006), ACGIH (2001) et al

No Teratogenic effects data available

## Carcinogenic effects

(Styrene)

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

(Titanium dioxide)

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

(Talc)

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

(Amorphous silica)

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

(Styrene)

ACGIH-A4(1996) : Not Classifiable as a Human Carcinogen

(Titanium dioxide)

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

(Talc)

ACGIH-A4(2008) : Not Classifiable as a Human Carcinogen (containing no asbestos fibers)

(Styrene)

JSOH-2B; Insufficient Evidence of Carcinogenicity for Humans

Toxicity for reproduction

(Styrene) ID151(2006), CERI/NITE hazard assessment No.52 (2004)

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

Specific target organ toxicity (single exposure cat.1)

(Styrene) CNS

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

(Titanium dioxide) Respiratory tract irritation

Specific target organ toxicity (repeated exposure cat.1)

(Styrene) respiratory apparatus/system; nerve/nervous system; blood/blood system; liver

(Titanium dioxide) lung

Aspiration hazard

(Styrene) ID151(2006), hydrocarbon, kinematic viscosity =0.772 mm<sup>2</sup>/s (25 C) (CERI cal.)

## 12. Ecological Information

Ecotoxicity

Aquatic toxicity

Harmful to aquatic life

(Styrene)

Fish (fat head minnow) LC50=4.02 mg/L/96hr (CERI/NITE, 2004)

(Titanium dioxide)

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

Water solubility

(Styrene)

0.03 g/100 ml (20 C) (ICSC, 2006)

(Titanium dioxide)

none (HSDB, 2004)

(Talc)

none (ICSC, 2001)

(Cobalt naphthenate)

none (ICSC, 2000)

Persistence and degradability

(Styrene)

BOD\_Degradation : 100%(Registered chemicals safety check & review data, Japan)

Bioaccumulative potential

(Styrene)

log Pow=2.95 (PHYSPROP Database, 2005)

## 13. Disposal Considerations

Waste residues

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

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

## 14. Transport Information

UN No, UN CLASS

UN No :1325

UN CLASS :4.1

PG :III

Proper shipping name :FLAMMABLE SOLID, ORGANIC, N.O.S.

ERG GUIDE NO :133

Sea pollutants control law

Noxious Liquid ; Cat. Y :Styrene

Noxious Liquid ; Cat. Z :Titanium dioxide

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

Organic Solvents Class II :Styrene

Harmful substances to be indicated :Styrene

Chemical name et al should be informed :Styrene;Titanium dioxide

;Cobalt naphthenate;Amorphous silica

PRTR law, Japan

Listed chemicals Gr.1 :Styrene

Fire protection law, Japan

Flammable solids : flammable solids ( Class III )

Ship cargo control law, Japan

Flammable solids, self-reactive substances and solid desensitised explosives

Air cargo control law, Japan

Flammable solids, self-reactive substances and solid desensitised explosives

Chemical Substances Control Law, Japan

Priority Assessment Chemical Substances :Styrene

Malodorants control law, Japan

TLVs at the border ; 0.4 – 2 ppm

Styrene

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#### 16. Other Information/References

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (3rd ed., 2009), UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 16th edit. UN

2008 EMERGENCY RESPONSE GUIDEBOOK(US DOT)

2011 TLVs and BEIs. (ACGIH)

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

Supplier's SDS

JIS Z 7250 2005

ezCric(Retrieval System/Japan Chemical Database Ltd.)

Other information

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own test