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Safety Data Sheets

1. Product and Company Identification

Product name :Thinner B

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.

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Product code(SDS NO) :EN770170-3

2. Hazards identification

GHS classification and label elements of the product

GHS classification

PHYSICAL HAZARDS

Flammable liquids : Category 3

HEALTH HAZARDS

Acute toxicity inhalation : Category 4

Skin corrosion/irritation : Category 2

Serious eye damage /eye irritation : Category 2A

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

Aspiration hazard : Category 1

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment-acute toxicity : Category 2



Signal word : Danger

HAZARD STATEMENT

Flammable liquid and Vapor

Harmful if inhaled

Causes skin irritation.

Causes serious eye irritation

Causes damage to organs after single exposure.

May cause respiratory irritation

Causes damage to organs following repeated exposure.

May be fatal if swallowed and enters airways.

Toxic to aquatic life

PRECAUTIONARY STATEMENT

Prevention

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

Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

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.

Response

Get medical advice/attention if you feel unwell.
 Do NOT induce vomiting.
 Take off contaminated clothing and wash before reuse.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 IF ON SKIN: Wash with plenty of soap and water.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 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 or concerned: 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 appropriate media other than water for extinction.

Storage

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

Disposal

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

3. Composition/Information on Ingredients

Substance/Preparation :Substance

Ingredient name	content(%)	CAS No.	PRTR law No, Japan
Styrene	> 99.6	100-42-5	1-240

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)

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.

8. Exposure Controls/Personal Protection

Control parameters e.g. occupational exposure limit values or biological limit values
Adopted value
ACGIH(1996) TWA: 20ppm
STEL: 40ppm (CNS impair; URT irr; periph neuropathy)
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 :liquid
Color :colorless

Flash point :31 (Closed)
Specific gravity :ca 0.91

10. Stability and Reactivity

Stability

Stable under normal storage/handling conditions.

11. Toxicological Information

Symptoms related to the physical, chemical and toxicological characteristics

Acute toxicity

Oral toxicity component(s) data

rat LD50=5000 mg/kg (CERI_NITE hazard assessment data No.52, 2004)

Inhalation toxicity component(s) data

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

Irritant properties

Skin corrosion/Irritation component(s) data

rabbit 500 mg open ; MILD

Mutagenic effects

Mutagen: Not Classified (EU risk assessment 2007)

Carcinogenic effects

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

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

Carcinogen: Not Classified (EU risk assessment)

Toxicity for reproduction

Reproductive toxicity: None (NTP-CERHR2005)

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

Specific target organ toxicity (single exposure cat.1)

(Styrene) CNS(central nervous system)

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

(Styrene) Respiratory tract irritation

Specific target organ toxicity (repeated exposure cat.1)

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

Aspiration hazard

(Styrene) hydrocarbon, kinematic viscosity =0.772 mm²/s (25 °C)

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Toxic to aquatic life

(Styrene)

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

Water solubility

(Styrene)

0.03 g/100 ml (20 °C) (ICSC, 2006)

Persistence and degradability

(Styrene)

BOD_Degradation : 100%(Registered chemicals data check & review, Japan)

Bioaccumulative potential

(Styrene)

log Pow=2.95 (PHYSPROP Database, 2005)

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.

14. Transport Information

UN No, UN CLASS

UN No :2055

UN CLASS :3

PG :III

Proper shipping name :STYRENE MONOMER, STABILIZED

ERG GUIDE NO :128P

Sea pollutants control law

Noxious Liquid ; Cat. Y :Styrene

Special precautions in connection with transport or conveyance

Follow instruction in Handling & Storage.

15. Regulatory Information

Industrial Safety and Health law, Japan

Organic Solvents Class II :Styrene

Harmful substances to be indicated :Styrene

Flammable

Chemical name et al should be informed :Styrene

Labor standard law, Japan; Toxic :Styrene

PRTR law, Japan

Listed chemicals Gr.1 :Styrene

Fire protection law, Japan

Petroleum Gr.2, (Class III)

Ship cargo control law, Japan

Flammable liquids

Air cargo control law, Japan

Flammable liquids

Chemical Substances Control Law, Japan

Priority Assessment Chemical Substances :Styrene

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

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