
M A T E R I A L S A F E T Y D A T A S H E E T

DATE PREPARED Oct.6. 2004

1 . C H E M I C A L P R O D U C T & C O M P A N Y I D E N T I F I C A T I O N

- C H E M I C A L P R O D U C T N A M E : SHOWBRINE SLP38UF (SBSP-38UF)
as used in Liquid Cooling System(LCS)
- Q U A N T I T Y : Not to exceed 500ml
- N A M E O F M A N U F A C T U R E R : Showa Water Industories Co.,Ltd.
- A D D R E S S : 1 3 1 Nagara-Shinsei-Cho Gifu-City Gifu JAPAN
- T E L E P H O N E N U M B E R : 81 - 58 - 232 - 1131
- F A X N U M B E R : 81 - 58 - 294 - 2231
- E M E R G E N C Y T E L E P H O N E : 81 - 58 - 232 - 1131

2 . C O M P O S I T I O N / I N F O R M A T I O N O N I N G R E D I E N T S

- S U B S T A N C E / M I X T U R E : MIXTURE
- C H E M I C A L N A M E : 1,2 Propanediol, Water et al.
- C O N T E N T : 1,2 Propanediol 24%, Water 74%, Others 2%
- S Y N O N Y M S : Propylene Glycol et al.
- C A S R E G I S T R Y N U M B E R : 57-55-6
- C H E M I C A L F O R M U L A : CH₂ (OH)CH(OH)CH₃ , H₂O
- U N C L A S S U N N o . : Not applicable for the definition of the dangerous goods of United Nation

3 . H A Z A R D I D E N T I F I C A T I O N

- C L A S S N A M E O F H A Z A R D O U S C H E M I C A L S F O R M S D S I N J A P A N : Not applicable
- P H Y S I C A L A N D C H E M I C A L H A Z A R D S : Combustible liquid.
- A D V E R S E H U M A N H E A L T H E F F E C T S :

Slightly irritating to the skin. Mildly irritating to the eyes.

This substance is believed to present very little hazard if swallowed.

This substance is believed to present very little hazard if contact to skin.

4 . F I R S T - A I D M E A S U R E S

- EYE CONTACT : Although not an anticipated route of exposure under normal conditions of use, contact of the liquid in the sealed unit with the eyes will cause irritation and possibly burning, which is generally alleviated when the product is rinsed from the eyes. Get immediate medical attention.
- SKIN CONTACT : Although not an anticipated route of exposure under normal conditions of use, wash with soap and water. Get medical attention if irritation develops or persists.
- INHALATION : Although not an anticipated route of exposure under normal conditions of use, no hazard in normal industrial use. If exposed to excessive levels of fumes, remove to fresh air and get medical attention if cough or other symptoms develop.
- INGESTION : Although not an anticipated route of exposure under normal conditions of use, if swallowed, do not induce vomiting . Give victim a glass of water. Call a physician immediately. Never give anything by mouth to an unconscious person.

5 . F I R E - F I G H T I N G M E A S U R E S

- General : The product is not classified as flammable but could be combustible in a fire. In case of fire, fluid as used in individual LCS should not require special fire fighting procedures.
- Flash Point : Not applicable
- Autoignition Temperature : Not applicable
- Flammable Limits : Not applicable
- Unusual and Explosion Hazards : Not applicable
- Protective Equipment in case of Fire : Wear self contained breathing apparatus
- EXTINGUISHONG MEDIA : Not applicable

6 . A C C I D E N T A L R E L E A S E M E A S U R E S

- Small Spillages : Small Spillages may be rinsed away with water.
 - Large Spillages : Not likely for this product as contained within this LCS system under normal conditions of use.
 - Personal Protective Equipment : Chemical resistant gloves and safety glasses or goggles container.
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7 . H A N D L I N G & S T O R A G E

- General : Avoid skin and eye contact. The usual high standard of individual hygiene should be maintained when handling.
- HANDLING : Wash thoroughly after handling. Avoid contact with eyes, skin and clothing.
- STORAGE : Keep container closed when not in use. Do not store in direct sunlight. Keep away from heat and flame.
Separated from strong oxidants, strong, acid, strong alkaline substances.

8 . E X P O S U R E C O N T R O L / P E R S O N A L P R O T E C T I O N

• CONTROL PARAMETERS

OSHA PEL(1996) TWA STEL : Not established

ACGIH TLV(1996) TWA STEL : Not established

- ENGINEERING MEASURES : Facilities strong or utilizing this substance should be equipped with an eyewash facility and a safety shower.
- PERSONAL PROTECTIVE EQUIPMENT :
 - RESPIRATORY PROTECTION : Chemical cartridge respirator with an organic vapour cartridge.
 - EYE PROTECTION : Wear safety glasses with side shields or goggles and a face shield.
 - HANDS, SKIN AND BODY PROTECTION : Wear contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots.

9 . P H Y S I C A L & C H E M I C A L P R O P E R T I E S

- PHYSICAL STATE : Liquid
- APPEARANCE : Red
- ODOR : Mild characteristic odor
- pH : 7.0 ~ 8.0
- SOLUBILITY IN WATER : Very good
- Density(g/cm³) 20 : 1.02 ~ 1.04
- BOILING POINT : 104 ~ 110
- MELTING POINT : - 7 ~ - 13)

10 . P H Y S I C A L H A Z A R D (S T A B I L I T Y & R E A C T I V I T Y)

- FLASH POINT : None
 - AUTOIGNITION TEMPERATURE : None
 - FLAMMABILITY : Not applicable
 - SPONTANEOUS COMBUSTIBILITY : Not applicable
 - REACTIVITY WITH WATER : Not reactive with water
 - OXIDIZIBILITY : Not oxidant
 - STABILITY & REACTIBILITY : This substance is stable.
 - HAZARDOUS DECOMPOSITION PRODUCTS : None
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11 . TOXICOLOGICAL INFORMATION

- ACUTE TOXICITY : General toxicity testing indicates that this material should be considered nontoxic based on recommendations of the Hazardous Substances Labeling Act. This material is not expected to be acutely toxic.
- CARCINOGENIC EFFECTS : The components in this product are not listed as a carcinogen by LARC, NTP, , OSHA or ACGIH.
- MUTAGENIC EFFECTS : This product is not reported to produce mutagenic effects.
- EMBRYO TOXIC EFFECTS : This product is not reported to produce embryo toxic effects
- TERATOGENIC EFFECTS : This product is not reported to produce teratogenic effects.
- REPRODUCTIVE EFFECTS : This product is not reported to produce reproductive toxic effects

12 . ECOLOGICAL INFORMATION

- BIODEGRABILITY : This product is biodegradable.
- BIOACCUMULATION : Not available
- FISH TOXICITY : No data available for this product. Based on the manner of use, this product is not expected to be acutely toxic to aquatic organisms.

13 . DISPOSAL CONSIDERATION

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local waste regulatory authority.

14 . TRANSPORT INFORMATION

This product is not hazardous.

Any transportation practice must be in compliance with laws and regulation in your country or region.

15 . REGULATORY INFORMATION

U.S.A status TSCA INVENTORY : Listed

The components of this product are not listed as a Marine Pollutant .

The components of this product are not considered hazardous AIR Pollutants .

Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.

16 . OTHER INFORMATION

- REFERENCES :**
- 1 . Tranceik , R.j. et al , :Contact Dermatitis.8,185 ~ 189 (1982)
 - 2 . Zesch , A , : Dematitis 31,Nr.3,74 ~ 78(1983)
 - 3 . NIOSH: Registry of Toxic Effects of Chemical Substances (1985 ~ 86)
 - 4 . Gantt , I.F. et al.; Fd.Cosmet. Toxicol.10,151 ~ 162 (1972)
 - 5 . Patty's Industrial Hygiene and Toxicology,3rd Ed.3852 ~ 3861(1982)
 - 6 . Harnish,S. :Arsh,Gefluegelkud.37,187(1973)
 - 7 . Weil , C.S et , al.;Food Cosmet.Toxicol.9,479(1971)
 - 8 . Haworth , S. et al.:Environ.Mutageneses5,14 ~ 15.46 ~ 47,126 ~ 27(1983)
 - 9 . Isidate. Ed.: Chromosomal Aberration Test in vitro, L.I.C., Inc., Tokyo(1987)
 - 10 . Gulai , D.K. et al, : Med&Boil.86(10),35(1986)

• To the best of our knowledge, the information contained herein is accurate.

However, neither Showa Water Industries Co.,Ltd nor any of its subsidiaries assumes any liability what is over for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sale responsibility of the user. All material may present unknown hazard and should be used with caution. Although certain hazard are described herein, we cannot guarantee that these are the only hazard which exist.