# MATERIAL SAFETY DATA SHEET

**Effective Date : 13 November 2009** **Rev. No. : 00**

## SECTION 1 - PRODUCT NAME AND COMPANY IDENTIFICATION

| | |
|---|---|
| Product | : 1-MS Sealant |
| Manufacturer | : ROVSKI Industries Sdn. Bhd. |
| Address | : Lot 561, Jalan Persiaran Subang 3, Subang Jaya Industrial Park,<br>Subang Jaya Industrial Park,<br>47610 Subang Jaya,<br>Selangor Darul Ehsan,<br>Malaysia. |
| Telephone No. / Fax No. | : 603-56332908 / 603-56341186 |
| Chemical family | : Modified Silicon |

## SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENT

| Chemical name(s) | Proportion (%) |
|---|---|
| Polymer | 30-50 |
| Plasticizer | 10-20 |
| Filler | 20-40 |
| Adhesion Promoter | 1-2 |
| Pigment | 5-15 |
| Additives | 1-5 |

## SECTION 3 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Boling point | : NA |
| Specific Gravity ($H_2O$ = 1) | : 1.42-1.52 |
| Vapour density (air=1) | : NA |
| Percent solid by weight (%) | : ≥95 |
| Evaporation rate (butyl acetate=1) | : NA |
| pH | : Neutral |
| Appearance and odour | : Thick paste, odorless |

## SECTION 4 - HAZARD IDENTIFICATION

| | |
|---|---|
| Flash point | : NA |
| Flammable limit (LEL & UEL) | : Unknown |
| Extinguishing Media | : Water, carbon dioxide or chemical foam. |
| Unusual fire and explosion hazards | : NA |

## SECTION 5 - FIRST AID MEASURES

| | |
|---|---|
| Eye contact | : Flush eyes gently with clean water for 15 minutes. Seek medical attention. |
| Skin contact | : Remove contaminated clothing. Wash exposed areas with soap and water. Wash clothing before reuse. Seek medical attention if irritation develops. |
| Ingestion | : Rinse mouth with water until it is free from ingested material. Then, drink a lot of water. Seek immediate medical attention. |
| Inhalation | : Immediately move individual away from exposure into fresh air. If person is not breathing, begin artificial respiration. Keep person warm and quiet. Seek immediate medical attention. |

## SECTION 6 - FIRE FIGHTING MEASURES

Fire fighting media : Small fire : Use dry chemical or foam.
large fire : Use water spray, fog or foam. Water or foam may cause frothing

Fire fighting instruction : Use water spray in order to cool down the surface that exposed to the fire, and to protect the workers. Shut off source or fuel to fire if it is possible to do so without hazard.

## SECTION 7 - ACCIDENTAL RELEASE MEASURES

Soil spill

- Eliminate all sources of ignition. Dike and contain spill with inert material such as sand and earth. Use suitable equipment like pail to scrape the spillage and transfer liquid and solid separately to containers for recovery or disposal. Seek the experts advice regarding the disposal of recovery materials and make sure that it is equivalent to local disposal regulations.

Water spill

- Warn the other sewers. Inform the respective person incharge at the nearby port and keep people away from the area. Eliminate all sources if possible to do so without hazard. Dike and contain spill from the surface by using suitable absorbent. Suitable drowning and/or separation can be used at the untrapped marine area, if allowed by the respestive local regulatory. Seek the experts advice regarding the disposal of recovery materials and make sure that it is equivalent to local disposal regulations.

## SECTION 8 - HANDLING AND STORAGE

Precautions to be taken in handling and storing : Store in cool dry area.
Other precautions : For industrial use only by trained personnel

## SECTION 9 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering measures / ventilation : The usage of local exzos ventilation is reccommended to control the emission process near to the sources. Provide a mechanical ventilation for the enclosed area.

Personal protection

General guides : The usage and selection of personal protective equipment is related to the dangerousness of the product, working place and the product handling. Generally, as a minimum safety procedures we recommend users to wear safety goggles which is equipped with the side protection, and wear working cloth or uniform which protect their hands, feet, and body. Besides, persons who visit the place at which the product is being handled or processed, must be at least wear safety goggles.

Respiratory protection : Users are advised to wear a half face filter mask to protect themselves from over exposure through inhalation. Filter materials is depends on the total and types of chemical being handled at the working place. However, 'P' type filter material or the one which is eqivalent can be considered to be used.

Hand protection : When handling this product, users are advised to wear protective gloves made from cotton or latex. The chosen of suitable protective gloves is depends on the working condition and types of chemical used. However, we have positive experience with the gloves made from nitrile. Gloves should be replaced immediately when the degradation effect appears.

Eye protection : Please refer to the general guides
Skin / body protection : Please refer to the general guides

## SECTION 10 - STABILITY AND REACTIVITY

| | | |
|---|---|---|
| Stability | : | Stable (avoid over exposure to high heat during storage). |
| Conditions to avoid | : | Avoid high heat except in used (strong oxidizing agents) |
| Hazardous decomposition products | : | Oxides of carbon and nitrogen formed upon heating at high temperature |
| Hazardous polymerization | | Will not occur |

## SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicity Data

| | |
|---|---|
| LD-50 absorbed orally in rat | 200 - 300 mg/kg |
| LD-50 percutaneous absorption in rat or rabbit | 400 - 2000 mg/kg |
| LC-50 absorbed by inhalation in rat | 2 - 20 mg/litre |

Carcinogenicity

This substance is not listed as a probable human carcinogen.

Effects of over exposure

Substance and preparations which if inhaled, ingested or penetrated into the skin may involve limited health risks like irritation, headache, nausea, diziness and fatigue.

Further information

| | | |
|---|---|---|
| Subacute-chronic toxicity | : | Rat: liver damage, kidney damage, (only after administration of very high doses of substance, after oral administration).<br>According to present knowledge, the liver-toxic effects are specific to rodents, the effects cannot be transferred to humans. |

## SECTION 12 - ECOLOGICAL INFORMATION

| | | |
|---|---|---|
| Bioaccumulation | : | Low bioconcentration factor (BCF) |
| Biodegradability | : | Not biodegradable. Long term adverse effects in the aquatic environment is expected. |
| Aquatic Toxicity | : | Harmful to aquatic organism |

## SECTION 13 - DISPOSAL INFORMATION

| | | |
|---|---|---|
| Precautions for disposal considerations | : | Do not discharge into drains or the environment, dispose of to an authorised waste collection point. |
| | : | Use appropriate containment to avoid environment contamination. |
| | : | Refer to manufacturer/supplier for information on recovery/recycling. |

## SECTION 14 - TRANSPORT INFORMATION

This product is not classified as hazardous goods according to the rsepective transportation regulations.

| | | |
|---|---|---|
| Precautions | : | Packaging (drum/steel pail) must be tightly closed and avoid vigorous shaking. |

## SECTION 15 - REGULATORY INFORMATION

| | | |
|---|---|---|
| **a. Proposed classification** | : | Harmful |
| **b. R Phrase** | | |
| R20/21/22 | : | Harmful by inhalation, in contact with skin and if swallowed |
| R52/53 | : | Harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment |
| R58 | : | May cause long term adverse effects in the environment. |
| **c. S Phrase** | | |
| S3/7/9 | : | Keep container tightly closed, in a cool well ventilated place. |
| S36 / 37 | : | Wear suitable protective clothing and gloves. |

## SECTION 16 - OTHER INFORMATION

| | | |
|---|---|---|
| Product use | : | Sealant |

**This information is believed to be accurate for the stated materials only, and represents the best information currently available to ROVSKI Industries Sdn. Bhd. However, we make no warranty of merchantability or any other warranty, express or implied with respect to such information, and we assume no liability resulting from its use. Any use of this product or method of application, which is not described on the product label or in this material safety data sheet is the sole responsibility of the user.**