

**MATERIAL SAFETY DATA SHEET****IRM 100**

Material no.		Version	1.0/ US
Specification	184450	Revision date	07/04/2014
Order Number		Print Date	07/07/2014
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**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product Information**

Trade name	IRM 100 Silicon dioxide, chemically prepared
Use of the Substance / Preparation Company	Silicone rubber Evonik Corporation USA 299 Jefferson Road Parsippany, NJ 07054-0677 USA
Telephone	973-929-8000
Telefax	973-929-8040
<b>US: CHEMTREC EMERGENCY NUMBER</b>	800-424-9300
<b>CANADA: CANUTEC EMERGENCY NUMBER</b>	613-996-6666
Product Regulatory Services	973-929-8060

**2. HAZARDS IDENTIFICATION****— EMERGENCY OVERVIEW \*\*\***

*Form-powder    Color-white    Odor-odorless*

Low hazard for usual industrial handling.

**POTENTIAL HEALTH EFFECTS****Eye contact**

No hazard expected in normal use.

**Skin Contact**

No hazard expected in normal use.

**Inhalation**

No hazard expected in normal use.

**Ingestion**

No hazard expected in normal use.

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**1.0 / US****07/04/2014****07/07/2014****2 / 9****3. COMPOSITION/INFORMATION ON INGREDIENTS**

CAS-No. 112926-00-8, 7631-86-9

**Information on ingredients / Hazardous components**

Silicon dioxide, chemically prepared

CAS-No. 112926-00-8 Percent (Wt. /Wt.)

**4. FIRST AID MEASURES****Inhalation**

In case product dust is released: Possible discomfort: cough, sneezing  
Move victims into fresh air.

**Skin contact**

Wash off with soap and plenty of water.

**Eye contact**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes or until all material has been removed. Obtain medical attention.

**Ingestion**

If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention.

**5. FIRE-FIGHTING MEASURES**

Flashpoint not applicable

Lower explosion limit not determined

Upper explosion limit not determined

Autoignition temperature not determined

**Suitable extinguishing media**

Water spray, foam, CO<sub>2</sub>, dry powder. Adapt fire-extinguishing measures to surroundings

**Extinguishing media which must not be used for safety reasons**

Do not use full-force water jet in order to avoid dispersal and spread of the fire.

**Specific hazards during firefighting**

None known.

**Special protective equipment for fire-fighters**

As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear personal protective equipment.

Environmental precautions

Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

Methods for cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Handling

Safe handling advice

Use with adequate ventilation.

Advice on protection against fire and explosion

Take precautionary measures against static discharges.

Storage

Requirements for storage areas and containers

Keep containers tightly closed in a dry, cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component occupational exposure guidelines

• Silicon dioxide, chemically prepared

CAS-No.	112926-00-8	
Control parameters	5 mg/m <sup>3</sup>	PEL : ( OSHA Z1)
	Respirable fraction.	

15 mg/m <sup>3</sup>	PEL : ( OSHA Z1)
Total dust.	

20 millions of particles	Time Weighted Average (TWA) : (Z3)
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per cubic foot of air

0.8 mg/m<sup>3</sup>

Time Weighted Average (TWA) : (Z3)

The exposure limit is calculated from the equation,  $80 / (\% \text{SiO}_2)$ , using a value of 100% SiO<sub>2</sub>. Lower values of % SiO<sub>2</sub> will give higher exposure limits.

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**Personal protective equipment****Respiratory protection**

A respiratory protection program that meets OSHA 1910.134 and ANSI Z89.5 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

**Hand protection**

Wear protective gloves made of the following materials: material, rubber, leather.

**Eye protection**

Wear safety glasses with side shields. In case dusts are formed, wear close fitting protective goggles.

**Skin and body protection**

A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements. It is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR 1910.132) be conducted before using this product.

**Hygiene measures**

When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. To ensure ideal skin protection: use super fatted soaps and skin cream for skin care. Wash contaminated clothing before reuse.

**Protective measures**

Handle in accordance with good industrial hygiene and safety practices. If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used. If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used.

**9. PHYSICAL AND CHEMICAL****PROPERTIES Appearance**

Form	powder
Color	white
Odor	odorless
physical state	solid

**Safety data**

pH	ca. 5.5 (50 g / l) (20°C) Method: DIN / ISO 787 / 9 (suspension)
Melting point/range	ca. 1700°C
Boiling point/range	not determined
Flash point	not applicable
Flammability	not applicable
Autoignition temperature:	not determined

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Autoinflammability	not applicable
Explosiveness	Not to be expected in view of the structure
Lower explosion limit	not determined
Upper explosion limit	not determined
Minimum ignition energy	not determined
Vapor pressure	not applicable
Density	ca. 2 g/cm <sup>3</sup> (20 °C)
Tapped density	ca. 65 g / l Method: DIN / ISO 787/11
Water solubility	hardly soluble
Partition coefficient (n-octanol/water)	not applicable
Viscosity, dynamic	not applicable
Vapour density	not applicable

**10. STABILITY AND REACTIVITY**

Conditions to avoid	No specific hazards are known.
Materials to avoid	None known.
Hazardous decomposition products	None known
Thermal decomposition	> 2000° C
Hazardous reactions	None if processed as per stipulations
Further information	Stable under normal conditions. Product will not undergo hazardous polymerization.

**11. TOXICOLOGICAL INFORMATION**

Product Acute oral toxicity	LD50 Rat: > 5000 mg/kg Method: OECD Test Guideline 401 comparable product
Product Acute inhalation toxicity	LCO Rat: 0.69 mg/l / 4 h Method: analogy OECD-method No deaths occurred. comparable product

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Product Acute dermal toxicity	LD50 Rabbit: > 5000 mg/kg comparable product
Product Skin irritation	Rabbit not irritating Method: analogy OECD-method comparable product
Product Eye irritation	Rabbit not irritating Method: analogy OECD-method comparable product
Product Sensitization	not known
Product Repeated dose toxicity	Oral no negative effects  inhalative No irreversible changes and no indication of silicosis.
Component Gentoxicity in vitro	Silicon dioxide, chemically prepared 112926-00-8 no evidence of mutagenic effects literature
Component Gentoxicity in vivo	Silicon dioxide, chemically prepared 112926-00-8 no evidence of mutagenic effects literature
Product Mutagenicity assessment	no evidence of mutagenic effects
Product Carcinogenicity	No evidence that cancer may be caused.
Product Toxicity to reproduction	no evidence of reproductiontoxic properties
Product General Toxicity Information	The classification criteria are not met based on the available data.
Product Human experience	Silicosis or other product specific illnesses of the respiratory tract were not observed in association with the product.

12. ECOLOGICAL INFORMATION

**Elimination information (persistence and degradability)**

Biodegradability The methods for determining biodegradability are not applicable to inorganic substances.

**Behavior in environmental compartments**

Bioaccumulation Not to be expected.

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Mobility No remarkable mobility in soil is to be expected.

**Ecotoxicity effects**

Toxicity to fish LC50 (Brachydanio rerio): > 10000 mg/l / 96 h  
Method: OECD 203

Toxicity to daphnia EC50 Daphnia magna: > 10000 mg/l / 24 h  
Method: OECD 202

General Ecological Information The classification criteria are not met based on the available data.

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**13. DISPOSAL****CONSIDERATIONS WASTE****DISPOSAL**

Advice on disposal Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.

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**14. TRANSPORT INFORMATION****Transport/further information**

Not dangerous according to transport regulations.

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**15. REGULATORY INFORMATION****US Federal Regulations****OSHA**

If listed below, chemical specific standards apply to the product or components:

None listed

**Clean Air Act Section (112)**


If listed below, components present at or above the de minimus level are hazardous air pollutants:

None listed

**CERCLA Reportable Quantities**

If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:

None listed

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**SARA Title III Section 311/312 Hazard Categories**

The product meets the criteria only for the listed hazard classes:

Acute Health Hazard

**SARA Title III Section 313 Reportable Substances**

If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

None listed

**Toxic Substances Control Act (TSCA)**

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

None listed

**State Regulations**

**California Proposition 65**

A warning under the California Drinking Water Act is required only if listed below:

None listed

**International Chemical Inventory Status**

Unless otherwise noted, this product is in compliance with the inventory listing of the countries shown below. For information on listing for countries not shown, contact the Product Regulatory Services Department.

Europe (EINECS/ELINCS)	Listed/registered
USA (TSCA)	Listed/registered
Canada (DSL)	Listed/registered
Australia (AICS)	Listed/registered
Japan (MITI)	Listed/registered
Korea (TCCL)	Listed/registered
Philippines (PICCS)	Listed/registered
China	Listed/registered
New Zealand	Not listed/Not registered

**16. OTHER INFORMATION**

**HMIS Ratings**

Health:	1
Flammability:	0
Physical Hazard:	0



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**Further information**

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.