

Section 1 - Product and Company Identification

Hazard Label WARNING label

Company Information

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Trade Names: Range-Glas® XG™; Spin-Glas® WH XG™

Use: Range-Glas® XG™ is designed to provide excellent thermal performance in all types of residential and commercial ovens operating at temperatures up to 1000°F (538°C).
Spin-Glas® WH XG™ is designed to provide excellent performance in residential and commercial water heaters (both electric and gas).

Section 2 - Hazards Identification

Emergency Overview

Product dust may cause mechanical irritation of skin and mucous membranes.

Inhalation

Temporary mechanical irritation may occur upon exposure to dust or fibers released from cutting this product.

Skin

Temporary irritation (itching) or redness may occur.

Ingestion

This product is not intended to be ingested (eaten). If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract.

Eyes

Temporary irritation (itching) or redness may occur.

Ears

Temporary irritation (itching) or redness may occur.

Primary Routes of Entry (Exposure)

Eyes, skin, inhalation (breathing dust and fibers) and ingestion.

Target Organs

Nose (nasal passages), throat, lungs, skin, eyes

Medical Conditions Aggravated by Exposure

Pre-existing chronic respiratory, skin, or eye diseases or conditions.

Section 3 - Composition/Information on Ingredients

CAS #	Component	Percent
Not Available	Fiber Glass Wool	50-98
Proprietary	Acrylic thermoset resin	2-18

Component Information

Fiber Glass Wool average fiber diameters = approximately 4-8 microns

General Product Description

White or white with black specks, fibrous glass blanket with facing.

Section 4 - First Aid Measures

First Aid: Inhalation

If dust is inhaled in excess of exposure limits referenced in section 8 of this safety data sheet, remove individual to fresh air. Drink water to clear throat, and blow nose to remove dust. A saline spray in the nose may help clear any fibers.

First Aid: Skin

Wash gently with soap and water to remove dust and fibers. Alternatively, fibers can be removed from the skin by use of ordinary masking or wrapping tape. Should irritation persist, seek medical attention.

First Aid: Ingestion

Rinse mouth with water to remove dust and fibers and drink plenty of water to help reduce irritation. If irritation persists, seek medical attention.

First Aid: Eyes

Do not rub or scratch eyes. Dust particles may cause the eye to be scratched. Flush eyes with large amounts of water until irritation subsides. If irritation persists, seek medical attention.

First Aid: Ears

Wash exposed skin with soap and water. If irritation develops in the inner ear, seek medical attention.

First Aid: Notes to Physician

Dust from the product may cause mechanical irritation of the eyes, skin, and upper respiratory tract. Treat symptomatically.

Section 5 - Fire Fighting Measures

Flash Point: Not applicable

Upper Flammable Limit (UFL): Not applicable

Auto Ignition: Not determined

Rate of Burning: Not determined

General Fire Hazards

There is no potential for spontaneous fire or explosion. Inorganic glass fibers are naturally non-combustible and non-flammable.

Extinguishing Media

Carbon dioxide (CO₂), water, water fog, dry chemical.

Fire Fighting Equipment/Instructions

No special procedures are expected to be necessary for this product. Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

Section 6 - Accidental Release Measures

Clean-Up Procedures

Pick up large pieces. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation. These procedures will help to minimize potential exposures.

Section 7 - Handling and Storage

Handling Procedures

Use protective equipment as described in Section 8 of this safety data sheet when handling uncontained material. Handle in accordance with good industrial hygiene and safety practices.

Storage Procedures

Warehouse storage should be in accordance with package directions, if any. Material should be kept clean, dry, and in original packaging.

Section 8 - Exposure Controls / Personal Protection

The Occupational Safety and Health Administration (OSHA) has not adopted specific occupational exposure standards for fiber glass. Fiber glass is treated as a nuisance dust and is regulated by OSHA as a particulate not otherwise regulated (total dust) shown in CFR 1910.1000 Table Z-3.

Respirable fraction 5 mg/m³

Total dust 15 mg/m³

JM has adopted the fiber glass industry voluntary Product Stewardship Program (PSP), formerly the NAIMA-OSHA Health and Safety Partnership Program (HSPP). Under the PSP, JM recommends that exposures be limited to the voluntary concentration of 1 f/cc TWA for fibers longer than 5 microns with a diameter less than 3 microns. This will help minimize potential irritation effects. The PSP also includes the PPE recommendations described below.

Exposure Limits for Chemicals which may be generated during processing

Acrolein (present in Range-Glas® XG™ only at elevated temperatures) (107-02-8)

ACGIH: 0.1 ppm Ceiling

Skin - potential significant contribution to overall exposure by the cutaneous route

OSHA: 0.1 ppm TWA; 0.25 mg/m³ TWA

0.3 ppm STEL; 0.8 mg/m³ STEL

NIOSH: 0.1 ppm TWA; 0.25 mg/m³ TWA

0.3 ppm STEL; 0.8 mg/m³ STEL

Acrylonitrile (present in Range-Glas® XG™ only at elevated temperatures) (107-13-1)

ACGIH: 2 ppm TWA
Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA: 1 ppm Action Level; 2 ppm TWA; 10 ppm Excursion Limit (15 min, Skin and eye exposure prohibited. Cancer hazard - see 29 CFR 1910.1045)
NIOSH: 1 ppm TWA
10 ppm Ceiling (15 min)
Potential for dermal absorption

Hydrogen cyanide (present in Range-Glas® XG™ only at elevated temperatures) (74-90-8)

ACGIH: 4.7 ppm Ceiling (as CN)
Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA: 4.7 ppm STEL; 5 mg/m3 STEL
Prevent or reduce skin absorption
NIOSH: 4.7 ppm STEL; 5 mg/m3 STEL
Potential for dermal absorption

Sulfur dioxide (present in Range-Glas® XG™ only at elevated temperatures) (7446-09-5)

ACGIH: 2 ppm TWA
5 ppm STEL
OSHA: 2 ppm TWA; 5 mg/m3 TWA
5 ppm STEL; 15 mg/m3 STEL
NIOSH: 2 ppm TWA; 5 mg/m3 TWA
5 ppm STEL; 13 mg/m3 STEL

Formaldehyde (present in Range-Glas® XG™ only at elevated temperatures) (50-00-0)

ACGIH: 0.3 ppm Ceiling
OSHA: 0.5 ppm Action Level; 0.75 ppm TWA; 2 ppm STEL (Irritant and potential cancer hazard - see 29 CFR 1910.1048)
NIOSH: 0.016 ppm TWA
0.1 ppm Ceiling (15 min)

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Safety glasses with side shields are recommended to keep dust out of the eyes.

Personal Protective Equipment: Ears

Use ear protection (earplugs, hood, or earmuffs) to prevent airborne dust or fibers from entering the ear, if necessary.

Personal Protective Equipment: Skin

Leather or cotton gloves should be worn to protect against mechanical abrasion. See also Personal Protective Equipment: General, below.

Personal Protective Equipment: Respiratory

A respirator should be used if ventilation is unavailable, or is inadequate for keeping dust and fiber levels below the applicable exposure limits referenced in Section 8 of this SDS. Wear a NIOSH-certified disposable or reusable particulate respirator with an efficiency rating of N95 or higher (per 42 CFR 84) when dust or fiber concentrations exceed the applicable exposure limits. Operations such as sawing, blowing, tear out, and spraying may generate airborne fiber concentrations requiring a higher level of respiratory protection. For exposures up to 50 times the established exposure limits use a full-face respirator, rated N99 or higher.

Ventilation

In fixed manufacturing settings, local exhaust ventilation should be provided at areas of cutting, milling or other processing to remove airborne dust and fibers.

Personal Protective Equipment: General

Wear a cap, a loose-fitting, long-sleeved shirt and long pants to protect skin from irritation. Exposed skin areas should be washed with soap and water after handling or working with fiber glass. Clothing should be washed separately from other clothes, and the washer should be rinsed thoroughly (run empty for a complete wash cycle). This will reduce the chances of fiber glass being transferred to other clothing.

Section 9 - Physical & Chemical Properties

Appearance: White or white with black specks, fibrous glass blanket.	Odor: No significant odor
Physical State: Solid	pH: Not applicable
Vapor Pressure: Not applicable	Vapor Density: Not applicable
Boiling Point: Not determined	Melting Point: >704°C/1300°F
Solubility (H2O): Nil	Specific Gravity: Variable
Freezing Point: Not applicable	Evaporation Rate: Not applicable
Percent Volatile: 0	

Section 10 - Stability & Reactivity Information

Stability

These products are not reactive.

Hazardous Decomposition

Range-Glas® XG™ projected air contaminant concentrations for first oven self-clean cycle in a 1,200 ft² home with 0.35 air changes per hour ventilation:

Contaminant	Time Interval after Start of Self-Cleaning Cycle					
	1st hour	2nd hour	3rd hour	4th hour	5th hour	6th to 8th hour
Carbon Monoxide (ppm)	1.2	7.2	6.7	5.2	3.6	1.9
Formaldehyde (mg/m ³)	0.10	0.33	0.33	0.29	0.21	0.12
Acetaldehyde (mg/m ³)	0.48	0.34	0.51	0.52	0.38	0.20
Acrolein (mg/m ³)	0.04	0.08	0.12	0.09	0.07	0.04
Total VOC's (mg/m ³)	0.47	1.69	1.65	1.61	1.37	0.90
Oven Temp (F)	69 - 792	792 - 843	827 - 847	827 - 850	328 - 840	107 - 328
1200 Ft ² home	← Self-cleaning cycle →				Cool down period	

Actual air contaminant concentrations for ovens and water heaters will vary based on service temperature, room size and the ventilation rate.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Acute Toxicity

A: General Product Information

Dust from this product is a mechanical irritant, which means that it may cause temporary irritation or scratchiness of the throat, and/or itching of the eyes and skin.

B: Component Analysis - LD50/LC50

No LD50/LC50's are available for this product's components.

Component Carcinogenicity

Fiber Glass Wool (Not Available)

- ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans
- NTP: Reasonably Anticipated To Be A Human Carcinogen (respirable size)
- IARC: Group 3 - Not Classifiable (IARC Monograph 81 [2002] (listed under Man-made mineral fibres), Monograph 43 [1988])

Chronic Toxicity

The U.S. Department of Health and Human Services, National Toxicology Program (NTP 1998, 2000, 2002) classified glass wool (respirable size) as reasonably anticipated to be a human carcinogen, based on sufficient evidence of carcinogenicity in animals. This assessment was originally prepared in 1993-1994 for the 7th Report on Carcinogens (NTP 1994), but has not been updated since then in the 8th, 9th, or 10th Reports on Carcinogens (NTP 1998, 2000, 2002).

Section 12 - Ecological Information

Ecotoxicity

A: General Product Information

No data available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Section 13 - Disposal Considerations

US EPA Waste Number & Descriptions**A: General Product Information**

This product is not expected to be a hazardous waste when it is disposed of according to the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Product characterization after use is recommended to ensure proper disposal under federal and/or state requirements.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14 - Transport Information

International Transport Regulations

These products are not classified as dangerous goods according to international transport regulations.

Section 15 - Regulatory Information
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US Federal Regulations**A: General Product Information**

SARA 311/312: This product is not classified as hazardous under SARA 311/312.

B: Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations**A: General Product Information**

The glass fibers in this product are not known to be regulated.
Other state regulations may apply. Check individual state requirements.

WARNING: This product contains a substance known to the state of California to cause cancer:

Component	CAS #
Acetaldehyde (potential trace decomposition)	75-07-0
Benzene (potential trace decomposition)	71-43-2
Ethylbenzene (potential trace decomposition)	100-41-4
Formaldehyde (potential trace decomposition)	50-00-0
Pyridine (potential trace decomposition)	110-86-1

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Component	CAS #
Toluene (potential trace decomposition)	108-88-3
Benzene (potential trace decomposition)	71-43-2

TSCA Status

This product and its components are listed on the TSCA 8(b) inventory.

None of the components listed in this product are listed on the TSCA Export Notification 12(b) list.

International Regulations**A: General Product Information**

These products are considered articles under both U.S. and international product regulations and as such, these products do not require registration or notification on the various country-specific inventories.

B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Fiber Glass Wool	Not Available	1 % (related to Fibrous glass)

WHMIS Classification

Controlled Product Classification: D2A

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations. This SDS contains all the information required by the Controlled Products Regulations.

Section 16 - Other Information

Other Information

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The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Date	MSDS #	Reason
06/02/08	1202-1.0000	New MSDS creation for Range-Glas and Spin-Glas WH from MSDS 1201.
09/16/08	1202-1.0001	Table of decomposition products added to Section 10. California Prop 65 carcinogens added to Section 15.
12/12/08	1202-1.0002	Another decomposition statement added to Section 10.
03/02/09	1202-1.0003	Minor edit to decomposition statement in Section 10. 'XG' added back to Range-Glas trade name.

End of Sheet 1202