



Material Safety Data Sheet

Fiber Glass Specialty Insulation

MSDS #: 1001

1. Product and company identification

Hazard Label WARNING

Johns Manville
Insulation Systems
717 17th Street
Denver, CO 80202 US

Telephone: 303-978-2000 8:00AM-5:00PM M-F
Internet: <http://www.jm.com>
Email: productsafety@jm.com
Emergency phone: 1-800-424-9300 (Chemtrec, in English)

Trade name: CM-24, CM-26, DuraCore®, EXACT-O-BOARD®, Microlite®, SPIN-GLAS®, Tuf-Glas®, TUF-SKIN®, VALULITE®

2. Hazards identification

OSHA/HCS status: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Emergency overview

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

No known significant effects or critical hazards. Formaldehyde may be released by partial hydrolysis of the urea formaldehyde polymer. Avoid prolonged contact with eyes, skin and clothing.

Potential acute health effects

Inhalation: Temporary mechanical irritation (itching) or redness may occur upon exposure to dust or fibers released during cutting.

Ingestion: No known significant effects or critical hazards.

Skin: Temporary mechanical irritation (itching) or redness may occur upon exposure to dust or fibers released during cutting.

Eyes: Temporary mechanical irritation (itching) or redness may occur upon exposure to dust or fibers released during cutting.

Potential chronic health effects

Chronic effects: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Target organs: nose/sinuses, throat, respiratory tract, skin/epithelium, eyes

Medical conditions aggravated by over-exposure: Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Carbon black	1333-86-4	- 10
Antimony oxide (Sb ₂ O ₃)	1309-64-4	- 3
Formaldehyde (gas)	50-00-0	- 0.1

4. First aid measures

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

Inhalation: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Notes to physician: Contact with or inhalation of glass dust and fibres may cause mechanical irritation of skin and mucous membranes. No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. No action shall be taken involving any personal risk or without suitable training.

5. Fire-fighting measures

Flammability of the product: No specific fire or explosion hazard.

Extinguishing media

Suitable: Use an extinguishing agent suitable for the surrounding fire.

Not suitable: None known.

Fire-fighting measures: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous thermal decomposition products: No specific data.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill: Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

Handling: Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits. Exposure limits

Nuisance dust:

ACGIH TLV8-hour time weighted average, 10 mg/m³ Form: total dust

OSHA PEL Z3, 5 mg/m³ Form: respirable fraction

OSHA PEL Z3, 10 mg/m³ Form: total dust

Formaldehyde (gas):

OSHA PEL 1989(1989-03-01) Notes: See Table Z-2 for operations or sectors excluded from section 1910.1048 or for which limit(s) is(are) stayed. Sec. 1910.1048 Formaldehyde. PEL: Permissible Exposure Level, 0.75 ppm

OSHA PEL 1989(1989-03-01) Notes: See Table Z-2 for operations or sectors excluded from section 1910.1048 or for which limit(s) is(are) stayed. Sec. 1910.1048 Formaldehyde. Short Term Exposure Limit (STEL), 2 ppm

OSHA PEL Z2(1993-06-30) Notes: see 1910.1048 PEL: Permissible Exposure Level, 0.75 ppm

OSHA PEL Z2(1993-06-30) Notes: see 1910.1048 Short Term Exposure Limit (STEL), 2 ppm

OSHA PEL(1993-06-30) PEL: Permissible Exposure Level, 0.75 ppm

OSHA PEL(1993-06-30) Short Term Exposure Limit (STEL), 2 ppm

NIOSH REL(1994-06-01) Notes: NIOSH potential occupational carcinogen See Appendix A - NIOSH Potential Occupational Carcinogen Time Weighted Average (TWA), 0.016 ppm

NIOSH REL(1994-06-01) Notes: NIOSH potential occupational carcinogen See Appendix A - NIOSH Potential Occupational Carcinogen Threshold Limit Value - Ceiling (TLV-C), 0.1 ppm

NIOSH REL(1994-06-01) Notes: NIOSH potential occupational carcinogen See Appendix A - NIOSH Potential Occupational Carcinogen Time Weighted Average (TWA), 0.016 ppm

NIOSH REL(1994-06-01) Notes: NIOSH potential occupational carcinogen See Appendix A - NIOSH Potential Occupational Carcinogen Threshold Limit Value - Ceiling (TLV-C), 0.1 ppm
ACGIH TLV(2000-03-01) Notes: Suspected human carcinogen. Sensitiser Substance identified by other sources as a suspected or confirmed human carcinogen. Refers to Appendix A -- Carcinogens. 2000 Adoption. Threshold Limit Value - Ceiling (TLV-C), 0.37 mg/m³, 0.3 ppm

Antimony oxide (Sb₂O₃):

ACGIH TLV(1994-09-01) Notes: Suspected human carcinogen. Exposure by all routes should be carefully controlled to levels as low as possible. Substance identified by other sources as a suspected or confirmed human carcinogen. Refers to Appendix A -- Carcinogens. Form: PRODUCT
OSHA PEL(1993-06-30) PEL: Permissible Exposure Level, 0.5 mg/m³
OSHA PEL 1989(1989-03-01) PEL: Permissible Exposure Level, 0.5 mg/m³
NIOSH REL(1994-06-01) Notes: Note: The REL and PEL also apply to other Antimony compounds (as Sb). Time Weighted Average (TWA), 0.5 mg/m³

Carbon black:

OSHA PEL 1989(1989-03-01) PEL: Permissible Exposure Level, 3.5 mg/m³
OSHA PEL(1993-06-30) PEL: Permissible Exposure Level, 3.5 mg/m³
NIOSH REL(1994-06-01) Notes: NIOSH potential occupational carcinogen See Appendix A - NIOSH Potential Occupational Carcinogen See Appendix C - Supplemental Exposure Limits Time Weighted Average (TWA), 3.5 mg/m³
NIOSH REL(1994-06-01) Notes: NIOSH potential occupational carcinogen Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs) See Appendix A - NIOSH Potential Occupational Carcinogen See Appendix C - Supplemental Exposure Limits Time Weighted Average (TWA)
ACGIH TLV(1994-09-01) Notes: The agent (mixture, or exposure circumstance) is not classifiable as to its carcinogenicity to humans. Substance identified by other sources as a suspected or confirmed human carcinogen. Refers to Appendix A -- Carcinogens. 1996 Adoption TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level, 3.5 mg/m³

Engineering measures: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Gloves (protection against mechanical abrasion)

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

9. Physical and chemical properties

Physical state: solid

Flash point: Not applicable.

Color: Various
Odor: practically odorless
Melting/freezing point: > 704 °C (1299.20 °F)
Volatility: 0 %(m)
VOC: <= 0.01 g/l

10. Stability and reactivity

Stability: The product is stable.

Hazardous decomposition products: Formaldehyde may be released by partial hydrolysis of the urea formaldehyde polymer.

Conditions of reactivity: Not available.
Not available.

11. Toxicological information

Acute toxicity

Carbon black: LD50 Oral Rat: > 15,400 mg/kg
 LD50 Dermal Rabbit: > 3,000 mg/kg

Antimony oxide (Sb2O3): LD50 Oral Rat: > 34,000 mg/kg
 LDLo Dermal Rabbit: 2,000 mg/kg

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Antimony oxide (Sb2O3)	eyes - Mild irritant	Rabbit			

Classification

Product/ingredient name	ACGIH	IARC	NIOSH	NTP	OSHA	
Carbon black	A4	2B	+			
Antimony oxide (Sb2O3)	A2	2B				
Formaldehyde (gas)	A2	1	+	Known	+	

ACGIH-A4-Not classifiable as a human carcinogen
 ACGIH-A2-Suspected human carcinogen
 IARC Group 2B, possibly carcinogenic to humans
 IARC Group 1, carcinogenic to humans
 +: NIOSH potential occupational carcinogen

12. Ecological information

Aquatic ecotoxicity

Antimony oxide (Sb2O3): 4 d LC50 Fresh water Lepomis macrochirus: > 440 mg/l
 4 d LC50 Fresh water Pimephales promelas: > 80 mg/l
 4 d LC50 Fresh water Pimephales promelas: > 80 mg/l
 4 d LC50 Marine water Mummichog: > 1,000 mg/l

4 d LC50 Marine water Mummichog: > 1,000 mg/l
2 d EC50 Fresh water Water flea: 423.45 mg/l

Environmental fate: No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

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

15. Regulatory information

U.S. Federal regulations

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 311: The following components are listed: Formaldehyde (gas)

Clean Air Act (CAA) 112 regulated toxic substances: The following components are listed:

Formaldehyde (gas)

State regulations

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive</u>	<u>No significant risk level</u>	<u>Maximum acceptable dosage level</u>
Formaldehyde (gas)	Yes.	No.	40 µg/day	No.

CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):Antimony oxide (Sb₂O₃)1000 lb(s) Reportable quantity
Formaldehyde (gas)100 lb(s) Reportable quantity
100 lb(s) Reportable quantity

Canada

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

DSL: All components are listed or exempted.

International regulations

Korea inventory: All components are listed or exempted.

Japan. ENCS - Existing and New Chemical Substances Inventory: All components are listed or exempted.

China. IECSC - Inventory of Existing Chemical Substances in China: All components are listed or exempted.

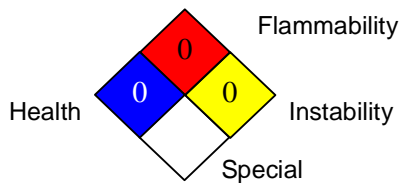
Australia. AICS - Australian Inventory of Chemical Substances: All components are listed or exempted.

Philippines. PICCS - Philippines Inventory of Chemicals and Chemical Substances: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

16. Other information

National Fire Protection Association (U.S.A.):



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