I. PRODUCTION IDENTIFICATION

Trade name:
KIMMCO Building Roll - KBR
KIMMCO Building Slab - KBS
KIMMCO Duct Insul - KDI
KIMMCO Duct Insul Plus - KDIP
KIMMCO Duct Liner - KDL
KIMMCO Glass Duct - KGD
KIMMCO Rigid Pipe Covering - K450, K850
KIMMCO Acoustic Panel - KAP
KIMMCO Clean Liner - KCL
KIMMCO Kalining - KKL 36
KIMMCO Lamella Insul - KLI
KIMMCO Acoustic Floor Insulation - KAFI

Chemical name: Mixture
CAS no: Non-assigned
Common Name(s): Fiber (or Fibrous) Glass Insulation

Classification
IARC (International Agency for Research on Cancer): Classified as 3
EUROPEAN DIRECTIVE 97/69EC, Note Q: NO CARCINOGENICITY
OSHA : Not listed

II. INGREDIENT INFORMATION

These products are not manufactured with, nor do they contain any Class I ozone depleting chemicals as defined by the EPA in Title VI of the Clean Air Act Amendments of 1990, 40 CFR Part 82, Protection of Stratospheric Ozone.
<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>%</th>
<th>Permissible Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibrous Glass</td>
<td>78 to 95</td>
<td>5 mg/m³ -Nuisance respirable dust (OSHA)</td>
</tr>
<tr>
<td>Urea-Phenol</td>
<td>5 - 12</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>0 - 10</td>
<td>None (OSHA)</td>
</tr>
<tr>
<td>Resin-cured</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSK, ASJ, MB2001, BGT VINYL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

III. PHYSICAL DATA

Boiling Point (° F): > 2550° (glass)
Melting Point (° F): 2550° (glass)
Softening Point (° F): > 1200°
Odour: Faint resin odor
Colour: Yellow
Vapour Density (Air = 1): N/A
Specific Gravity (H₂O = 1): Glass = 2.5
Evaporative Rate (ethyl ether = 1): N/A
Vapour Pressure (mm Hg @ 20°C): N/A
% Volatile by Volume: N/A
% Solubility: Small

Appearance: Fibers assembled into tubes - blankets or boards. The products may be faced with Kraft, aluminium foil, vinyl or a combination thereof. Some products may have a coating.

IV. FIRE AND EXPLOSION HAZARD DATA

Flash point (° F) and Method: Does not support combustion.
Flammable limits: LEL: N/A; UEL: N/A
Auto ignition Temperature: N/A
Extinguishing Media: Use that which is applicable to surrounding fire.
Special Fire-Fighting Procedures: Treat as residential building materials.
Unusual Fire and Explosion Hazard: Facings on these products may burn. Care should be taken to not leave facing exposed when working close to an open flame. These products contain a cured phenolic-based binder. The binder, Kraft & metallized polyester facings in a fire situation may emit toxic fumes and smoke containing Carbon dioxide, Carbon monoxide and molecular fragments of hydrocarbon particulars, carbon-hydrogen-nitrogen and nitrogen-oxygen compound. Vinyl facings may thermally decompose at about 260°C (500°F) and release hydrogen chloride.

V. REACTIVITY DATA

Stability: Material is stable
Corrosivity: None
Incompatibility: Hydrofluoric acid
Reactivity: None
Reactivity with water: None
VI. HEALTH HAZARD DATA

Primary Routes of Entry: Inhalation, skin and eye contact.

Acute: Exposure to fiberglass may cause temporary skin, eye and upper respiratory irritation.

Medical conditions which may be aggravated: Pre-existing conditions which may be aggravated by mechanical irritants upon inhalation or skin contact.

Information for Medical Practitioners: Skin irritation responds well to mild hydrocortisone cream.

Chronic: Extensive medical scientific research has been conducted regarding the health aspects of fiberglass over the past 50 years. The International Agency for Research on Cancer (IARC), an agency of the World Health Organization (WHO), at a meeting in June 1987, reviewed all of the significant research on the health effects attributed to fiberglass.

IARC also reviewed animal studies involving exposure to fiberglass. In comprehensive studies where laboratory animals were forced to inhale fibers (in far greater concentrations than human exposure), there was no evidence of cancer or other respiratory disease. However, in other animal experiments in which glass wool fibers were artificially injected or surgically implanted in the animals lungs, tumors were produced. Such procedures bypassed normal body defense mechanisms. One of the researchers, responsible for extensive work in surgical implantation, stated that, "Our experiments are inappropriate for evaluating many aspects of the environmental hazards, since they circumvent those factors that might inhibit or enhance exposure through natural routes."

A July 1990 update of an epidemiology study of 11,380 man-made vitreous workers revealed a small statistical significant excess in respiratory cancer (SMR 112.1) for the total period 1946-1985. Moreover, in general, observed excesses were small, were not observed consistently, or may have been attributable to other factors.

Based largely on the animal implantation experiments and following its mandatory classification protocol, IARC classified glass wool as category 2B, "possibly carcinogenic to humans." IARC regards it as prudent to treat a material for which there is sufficient evidence of carcinogenicity in animals as if it is a possible carcinogen to humans.

Investigations of cancer incidence or mortality in the general population exposed to MMVF (man-made vitreous fibers) have not been identified, as reported by Canadian Environmental Protection Act 993 report.

In late 1995, IARC issued its final report on study of fiberglass (and rock and slag wool) workers in seven European nations. This report found no association between employment in the MMVF industry and lung cancer (reference NAIMA publication 14, issue 9/96).

In 1998, the fiberglass manufactured by KIMMCO has passed the criteria for exoneration from possible carcinogenicity according to the EUROPEAN DIRECTIVE 97/69EC, Note Q.

In October 2001, an international expert review by the International Agency for Research on Cancer (IARC) re-evaluated the 1988 IARC assessment of glass fibers and removed glass wool from its list of possible carcinogens by downgrading the classification of these fibers from Group 2B (possible carcinogen) to Group 3 (not classifiable as to carcinogenicity in humans). All fiberglass wools that
are commonly used for thermal and acoustical insulation are included in this classification. IARC noted specifically:

“Epidemiologic studies published during the 15 years since the previous IARC Monographs review of these fibers in 1988 provide no evidence of increased risks of lung cancer or mesothelioma (cancer of the lining of the body cavities) from occupational exposures during manufacture of these materials, and inadequate evidence overall of any cancer risk.”

US department of Health & Human Services Public Health Service - National Toxicology Program (NTP) Reported on Carcinogens as below:

“Glass wool (Respirable Size)” was first listed in the Seventh Annual Report on Carcinogens as reasonably anticipated to be a human carcinogen based on sufficient evidence from studies in experimental animals. “Respirable” fibres are those that can penetrate into the alveolar region of the lung upon inhalation (EPA 2001).

Since that time, additional studies have been conducted to evaluate the physicochemical properties of glass wool fibers related to carcinogenicity. Evidence from studies of fiber properties which indicates that only certain fibers within this class - specifically, fibers that are biopersistent in the lung or tracheo bronchial region- are reasonably anticipated to be human carcinogens.

In 2011, the listing was changed in the Twelfth Report on Carcinogens to “Certain Glass wool Fibers (Inhalable)”, which are listed as reasonably anticipated to be human carcinogens.

On June 10, 2011, U.S. National Toxicology Program ("NTP") removed biosoluble glass wool fibers used for home and building insulation from its list of substances “Reasonably anticipated to be Human Carcinogen". The NTP action means that a cancer warning label for biosoluble fiber glass home and building insulation is no longer required under federal law.

In November, 2011California OEHHA (Office of Environmental Health Hazard Assessment) published a modification to its proposition 65 listing to include only “Glass wool fibers (inhalable and biopersistent)” based on above NTP finding. The listing as described in the table below:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS No.</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass wool fibers (inhale and biopersistent)</td>
<td>-</td>
<td>NTP (2011)</td>
</tr>
</tbody>
</table>

Carcinogenicity:
Ingredient: Fibrous glass wool
NTP: Not listed
IARC: Classified as 3
European Directive 97/69EC, Note Q: No carcinogenicity
OSHA: Not listed

Emergency and First Aid Procedures:
Inhalation: Remove from exposure. Get medical help if irritation persists.
Eye contact: Flush well with running water for at least 15 minutes. Get medical help if irritation persists.
**Skin contact:** Cleanse with soap and water. Get medical help if irritation persists.
**Ingestion:** Unlikely. Consult physician if unusual reaction is noted.
**Fires:** Remove to fresh air, administrate oxygen and get medical help.

### VII. SPILL, LEAK, STORAGE and DISPOSAL INFORMATION

**Spills:** Vacuum dust deposits.
**Accidental or Unplanted Releases:** Clean area with vacuum or wet methods.
**Storage:** Store cover to protect product.
**Waste Disposal Information:** Scrap material should be disposed of in a sanitary landfill in accordance with federal, state and local regulations. Waste is not hazardous as defined by Environmental Protection Agency's (EPA's) Resource Conservation and Recovery Act (RCRA).

### VIII. SPECIAL PROTECTION INFORMATION

This fiberglass wool insulation may cause skin, eye and respiratory irritation.

**When handling and/or applying this insulation:**
* Wear long sleeves, gloves and cap.
* Wear eye protection (goggles, safety glasses or face mask).
* Use a NIOSH/MSHA approved dust respirator such as a 3M model # 8710 or #9900 or equivalent.

**After handling and/or applying this insulation:**
* Bathe with soap and warm water.
* Wash work clothes seperately and rinse washer after use.

**Work Practices and Engineering Controls:** Avoid spread of fiberglass dust. Provide general and/or local exhaust ventilation to control airborne dust levels below exposure limits.

**NOTE:**
For additional product safety information, including dust respirator data and Material Safety Data Sheets (MSDS), call (+965) 1881111 X 5310.

### IX. PREPARATION INFORMATION

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