# International Carbide Technology Co., Ltd. (INCA Tech)

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## SECTION 1: Identification

### 1.1. Identification

| | | |
|---|---|---|
| Product form | : | Mixture |
| Trade name | : | Fire Barrier Foam |
| Product code | : | US150B |

### 1.2. Recommended use and restrictions on use

| | | |
|---|---|---|
| Use of the substance/mixture | : | Fill, Void Or Cavity Materials |

### 1.3. Supplier

International Carbide Technology Co., Ltd.

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## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

**GHS-US classification**

| | |
|---|---|
| Acute toxicity (inhalation:dust,mist) Category 4 | Harmful if inhaled |
| Skin corrosion/irritation Category 2 | Causes skin irritation |
| Serious eye damage/eye irritation Category 2 | Causes serious eye irritation |
| Respiratory sensitization, Category 1 | May cause an allergy or asthma symptoms or breathing difficulties if inhaled |
| Skin sensitization, Category 1 | May cause an allergic skin reaction |
| Carcinogenicity Category 2 | Suspected of causing cancer |
| Specific target organ toxicity (single exposure) Category 3 | May cause respiratory irritation |
| Specific target organ toxicity (repeated exposure) Category 2 | May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation) |

### 2.2. GHS Label elements, including precautionary statements

**GHS-US labeling**

Hazard pictograms (GHS-US) :

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause an allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
Suspected of causing cancer
May cause respiratory irritation
May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation)

Precautionary statements (GHS-US) :
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist, spray, vapors.
Wash hands thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace
Wear eye protection, protective clothing, protective gloves.
[In case of inadequate ventilation] wear respiratory protection.
If on skin: Wash with plenty of water
If inhaled: Remove person to fresh air and keep comfortable for breathing
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If exposed or concerned: Get medical advice/attention.
Immediately call a POISON CENTER
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If experiencing respiratory symptoms: Call a POISON CENTER

Take off contaminated clothing and wash it before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Lachrymator.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | CAS No. | % |
|---|---|---|
| Diphenylmethane-4,4'-Diisocyanate(MDI) | 101-68-8 | 80 |
| propylene glycol | 25322-69-4 | 20 |

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow victim to breathe fresh air. Allow the victim to rest. Call a physician immediately.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Contaminated work clothing should not be allowed out of the workplace. Get medical advice/attention.

First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Call a poison center/doctor/physician if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : Suspected of causing cancer. May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation).

Symptoms/effects after inhalation : Harmful if inhaled. May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact : Causes skin irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : May cause gastric irritation.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Fire hazard : On combustion, forms: carbon oxides (CO and CO2). Nitrogen oxides.

Explosion hazard : No direct explosion hazard.

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not breathe mist, spray, vapors. Stop leak if safe to do so.

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear personal protective equipment.

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Notify authorities if product enters sewers or public waters.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: "Disposal considerations".

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapor. Use only outdoors or in a well-ventilated area. Do not breathe mist, spray, vapors. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Wear recommended personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety practice.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep container closed when not in use. Store locked up. Store in a dry, cool and well-ventilated place.

Incompatible products : Water. Amines. Strong bases. Alcohol.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| 4,4'-Methylenediphenyl diisocyanate (101-68-8) | | |
|---|---|---|
| ACGIH | Local name | Methylene bisphenyl isocyanate (MDI) |
| ACGIH | ACGIH TWA (ppm) | 0.01 ppm |
| ACGIH | Remark (ACGIH) | Resp sens |
| ACGIH | Regulatory reference | ACGIH 2018 |
| OSHA | OSHA PEL (Ceiling) (mg/m³) | 0.2 mg/m³ |
| OSHA | OSHA PEL (Ceiling) (ppm) | 0.02 ppm |
| OSHA | Regulatory reference (US-OSHA) | OSHA |
| IDLH | US IDLH (mg/m³) | 75 mg/m³ |
| NIOSH | NIOSH REL (TWA) (mg/m³) | 0.05 mg/m³ |
| NIOSH | NIOSH REL (TWA) (ppm) | 0.005 ppm |
| NIOSH | NIOSH REL (ceiling) (mg/m³) | 0.2 mg/m³ |
| NIOSH | NIOSH REL (ceiling) (ppm) | 0.02 ppm |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

**Personal protective equipment:**

Avoid all unnecessary exposure.

**Hand protection:**

Wear protective gloves. Dispose of protective gloves after use.

**Eye protection:**

Chemical goggles or safety glasses. Use splash goggles when eye contact due to splashing is possible

**Skin and body protection:**

Long sleeved protective clothing

**Respiratory protection:**

An approved organic vapor respirator/supplied air or self-contained breathing apparatus must be used when vapor concentration exceeds applicable exposure limits

**Other information:**

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | Liquid |
| Color | : | colorless to slightly yellow |
| Odor | : | characteristic |
| Odor threshold | : | No data available |
| pH | : | No data available |
| Melting point | : | < 18 °C |
| Freezing point | : | No data available |
| Boiling point | : | > 200 °C |
| Flash point | : | > 200 °C |
| Relative evaporation rate (butyl acetate=1) | : | No data available |
| Flammability (solid, gas) | : | Not applicable. |
| Vapor pressure | : | 0.01 Pa |
| Relative vapor density at 20 °C | : | No data available |
| Relative density | : | No data available |
| Specific gravity / density | : | 1.15 - 1.25 |
| Solubility | : | Not miscible. |
| Log Pow | : | No data available |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | > 230 °C |
| Viscosity, kinematic | : | No data available |
| Viscosity, dynamic | : | No data available |
| Explosion limits | : | No data available |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions

May polymerize on exposure to temperature rise.

### 10.4. Conditions to avoid

Moisture. Overheating.

### 10.5. Incompatible materials

Water. Amines. Strong bases. alcohols.

### 10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. On combustion forms: Carbon monoxide. Carbon dioxide. Nitrogen oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

| | |
|---|---|
| ATE US (dust, mist) | 2 mg/l/4h |

| **4,4'-Methylenediphenyl diisocyanate (101-68-8)** | |
|---|---|
| LD50 oral rat | 31600 mg/kg |
| LC50 inhalation rat (mg/l) | 369 mg/m³ (Exposure time: 4 h) |

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Suspected of causing cancer.

| **4,4'-Methylenediphenyl diisocyanate (101-68-8)** | |
|---|---|
| IARC group | 3 - Not classifiable |

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

Specific target organ toxicity – single exposure : May cause respiratory irritation.

| **4,4'-Methylenediphenyl diisocyanate (101-68-8)** | |
|---|---|
| Specific target organ toxicity – single exposure | May cause respiratory irritation. |

Specific target organ toxicity – repeated exposure : May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation).

| **4,4'-Methylenediphenyl diisocyanate (101-68-8)** | |
|---|---|
| Specific target organ toxicity – repeated exposure | May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation). |

Aspiration hazard : Not classified

(Based on available data, the classification criteria are not met)

Viscosity, kinematic : No data available

Likely routes of exposure : Inhalation. Ingestion. Skin and eye contact.

Symptoms/effects : Suspected of causing cancer. May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation).

Symptoms/effects after inhalation : Harmful if inhaled. May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact : Causes skin irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : May cause gastric irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : This material has not been tested for environmental effects.

### 12.2. Persistence and degradability

| **Fire Barrier Foam** | |
|---|---|
| Persistence and degradability | Not established. |

### 12.3. Bioaccumulative potential

| **Fire Barrier Foam** | |
|---|---|
| Bioaccumulative potential | Not established. |

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

| 4,4'-Methylenediphenyl diisocyanate (101-68-8) | |
|---|---|
| 1990 Hazardous Air Pollutant (Clean Air Act) | Yes |

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

**Department of Transportation (DOT)**

In accordance with DOT

Not regulated

**Transportation of Dangerous Goods**

Not regulated

**Transport by sea**

Not regulated

**Air transport**

Not regulated

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| 4,4'-Methylenediphenyl diisocyanate (101-68-8) | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Subject to reporting requirements of United States SARA Section 313 | |
| CERCLA RQ | 5000 lb |

### 15.2. International regulations

**CANADA**

| 4,4'-Methylenediphenyl diisocyanate (101-68-8) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

**EU-Regulations**

| 4,4'-Methylenediphenyl diisocyanate (101-68-8) |
|---|
| Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) |

**National regulations**

| 4,4'-Methylenediphenyl diisocyanate (101-68-8) |
|---|
| Listed on the AICS (Australian Inventory of Chemical Substances)<br>Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory<br>Listed on the Japanese ISHL (Industrial Safety and Health Law)<br>Listed on the Korean ECL (Existing Chemicals List)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)<br>Japanese Pollutant Release and Transfer Register Law (PRTR Law)<br>Listed on INSQ (Mexican National Inventory of Chemical Substances)<br>Listed on CICR (Turkish Inventory and Control of Chemicals)<br>Listed on the TCSI (Taiwan Chemical Substance Inventory) |

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 08 August 2018

Other information : None.

Full text of H-phrases:

| | |
|---|---|
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H319 | Causes serious eye irritation |
| H332 | Harmful if inhaled |
| H334 | May cause an allergy or asthma symptoms or breathing difficulties if inhaled |
| H335 | May cause respiratory irritation |
| H351 | Suspected of causing cancer |
| H373 | May cause damage to organs through prolonged or repeated exposure |

Indication of changes:

| Section | Changed item | Change | Comments |
|---|---|---|---|
| 2 | GHS-US classification | Modified | |
| 4 | Symptoms/effects | Modified | |
| 7.2 | Incompatible materials | Modified | |
| 8 | Personal protective equipment | Modified | |
| 10 | Stability and reactivity | Modified | |
| 11 | Toxicological information | Modified | |

SDS US (GHS HazCom 2012)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*