SECTION 1. IDENTIFICATION

Product identifier

Product name : Fybrel™ (Polyethylene)
SDS Number : 51117A

Recommended use of the chemical and restrictions on use

Recommended use : Viscosity adjustors, Adhesives, Maintenance paint, Paint

Company/Undertaking Identification

Manufacturer

Company : Mitsui Chemicals, Inc.
Street address : Shiodome City Center, 1-5-2, Higashi-Shimbashi, Minato-ku, Tokyo, 105-7122, Japan
Responsible Department : Nonwovens Division
Telephone : +81-3-6253-3651
Telefax : +81-3-6253-4226

Emergency Phone Number
Mitsui Chemicals, Inc.
+81-3-6253-3651
This telephone number is available during office hours only.

SECTION 2. HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with paragraph (d) of §1910.1200

Not applicable; This product is a manufactured “article” which do not result in exposure to hazardous chemicals under normal conditions of use.

Although none of hazard statements are applicable, this product should be handled with following precautions.

Precautionary statements : Prevention:
Obtain special instructions before use, and DO NOT handle until all safety precautions have been read and understood.
Wash hands and face thoroughly after handling.
Avoid release to the environment.

Response:
IF exposed or concerned, or if you feel unwell: Get medical advice/attention.

Disposal:
Dispose of contents/container in accordance with local/regional/international regulations.
Do not reuse the container for any other purpose. Dispose of in accordance with applicable laws and regulations.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene</td>
<td>9002-88-4</td>
<td>30 - 70%</td>
</tr>
<tr>
<td>Polyvinyl alcohol</td>
<td>9002-89-5</td>
<td>&lt;=3.0% (dry wt.)</td>
</tr>
<tr>
<td>water</td>
<td>7732-18-5</td>
<td>30 - 70%</td>
</tr>
<tr>
<td>n-hexane (*)</td>
<td>110-54-3</td>
<td>&lt;0.2%</td>
</tr>
</tbody>
</table>

(*) adhering substance

Hazardous components : none

SECTION 4. FIRST AID MEASURES

Description of first aid measures

If inhaled : If you feel unwell, remove to fresh air immediately.
Get medical attention if cough or other symptoms develop.

In case of skin contact : Immediately remove contaminated clothing and shoes.
Flush skin with large amounts of water, clean off with soap and water.
Get medical attention if symptoms develop.

In case of eye contact : Immediately flush eyes with plenty of water for several minutes.
Part eyelids with fingers to assure complete flushing.
Check for and remove contact lenses if easily possible.
Get medical attention if irritation persists.

If swallowed : Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
Rinse mouth with water.
Keep the affected person warm and at rest. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

Protection of first-aiders : Wear appropriate personal protective equipment such as protective gloves, protective clothing, eye protection, face protection, respirator, safety shoes, etc.
SECTION 5. FIREFIGHTING MEASURES

Suitable and unsuitable extinguishing media

Suitable extinguishing media: Water jet, Water mist, Foam, Dry chemical, Carbon dioxide (CO2)

Unsuitable extinguishing media: none

Specific hazards arising from the chemical

No information available.

Advice for firefighters

Special protective equipment for firefighters: Respiratory and eye protection required for fire-fighting personnel. Full protective equipment and self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires.

Further information: Remove all sources of ignition. Keep unnecessary and unprotected personnel away. Remove containers to safe place if possible. Fight fire from an upwind position. Keep surrounding areas cool by spraying water.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Wear appropriate personal protective equipment such as protective gloves, protective clothing, eye protection, face protection, respirator, protective boots, etc. Keep unnecessary and unprotected personnel away. Keep upwind, evacuate downwind. Evacuate immediate area.

Environmental precautions: Do not flush into sewer, river, or any body of water. Do not let this chemical enter the environment.

Methods and materials for containment and cleaning up: Use only non-sparking tools. Vacuum or sweep up material and place in a disposal container. If the quantity is small, use an electric vacuum cleaner or broom to sweep and collect the product. If in molten state, allow it to cool and solidify before proceeding with disposal methods. Scattered material should be collected to paper bag, etc.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Technical measures: Refer to the "Engineering measures" in Section 8. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wear appropriate personal protective equipment. Provide hand and eye wash station near work area. Wash thoroughly after handling. Take precautionary measures against static discharge.
Use only in well-ventilated area. Keep away from heat, sparks, and flame.

Advice on safe handling: Do not handle until all safety precautions have been read and understood.

Hygiene measures: Wash hands thoroughly after handling. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Conditions for safe storage: Store locked up. The floor must be protected from water and impermeable. The inventory location must be fire-resisting. Make the roof from nonflammable materials, and do not install the ceiling. Install appropriate facilities for lighting/ventilating. Store indoors.

Materials to avoid: Strong oxidizers, Strong acids and strong bases

Avoidance of contact: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, flame, and all sources of ignition. Store in a segregated and approved area.

Suitable container and packaging materials for safe storage: Polyolefin bags or containers

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>TWA</td>
<td>50 ppm [2016]</td>
<td>ACGIH</td>
</tr>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>TWA</td>
<td>500 ppm 1800 mg/m3 [2016]</td>
<td>OSHA</td>
</tr>
</tbody>
</table>

Engineering measures: Provide safety shower and eye wash station near work area. Use closed system or local exhaust ventilation.

Personal protective equipment

Respiratory protection: Respirator with a particle filter, Respirator with filter for organic vapour

Hand protection: Protective gloves

Eye protection: Safety goggles, Eye shield, Face shield

Skin and body protection: Protective suit, Safety shoes, Safety helmet, Apron

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: solid
Form: wet sheets
Colour: white
Odour: odorless
Odour Threshold : no data available
pH : not applicable
Melting point/range : 125 - 137 °C (Varies by product)
Boiling point/boiling range : No information available.
Flash point : > 200 °C
Evaporation rate : no data available
Flammability (solid, gas) : no data available
Upper explosion limit : no data available
Lower explosion limit : no data available
Vapour pressure : no data available
Relative vapour density : no data available
Density : 0.93 - 0.97 g/cm³ (Varies by product)
Water solubility : insoluble
Solubility in other solvents : no data available
Partition coefficient: n-octanol/water : no data available
Auto-ignition temperature : no data available
Thermal decomposition : no data available
Viscosity, dynamic : no data available
Viscosity, kinematic : no data available
Sublimation point : no data available
Surface tension : no data available
 Burning rate : no data available
Bulk density : no data available
Flow time : no data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : no data available
Chemical stability : Stable under normal conditions. This material does not ignite easily, but will burn when dry.
Possibility of hazardous reactions : Dust may be ignite or explode by static electricity or other ignition sources.
Conditions to avoid : overheating
Incompatible materials : Strong oxidizers, Strong acids and strong bases
Hazardous decomposition products : Organic acids

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Primary Routes of Entry : Inhalation, Skin contact, Eye contact, Ingestion

Potential Health Effects
Inhalation : Dust may cause respiratory tract irritation.
Skin contact : Contact with dust can cause mechanical irritation.
Eye contact : Dust contact with the eyes can lead to mechanical irritation.
Ingestion : No significant health hazard identified.

Information on Carcinogenicity

IARC : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Information on toxicological effects

**Product:**
Acute oral toxicity : No data is available on the product itself.
Acute dermal toxicity : No data is available on the product itself.
Acute inhalation toxicity : No data is available on the product itself.
Skin corrosion/irritation : No data is available on the product itself.
Serious eye damage/eye irritation : No data is available on the product itself.
Sensitisation : No data is available on the product itself.
Germ cell mutagenicity : No data is available on the product itself.
Carcinogenicity : No data is available on the product itself.
Reproductive toxicity : No data is available on the product itself.
STOT - single exposure : No data is available on the product itself.
STOT - repeated exposure : No data is available on the product itself.
Aspiration toxicity : No data is available on the product itself.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

**Product:**
no data available

Persistence and degradability

**Product:**
no data available

Bioaccumulative potential

**Product:**
Partition coefficient: n-octanol/water : no data available
Mobility in soil

**Product:**
Surface tension : no data available

**Other adverse effects**

**Product:**
Ozone-Depletion Potential : Regulation: CAA 602 I
This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**Waste from residues** : In accordance with local and national regulations.
Dispose of wastes in an approved waste disposal facility.
When outsourcing waste treatment, be sure to notify the treatment company regarding the hazards before outsourcing.

**Contaminated packaging** : Empty the container completely before disposal.
Do not reuse the container for any other purpose. Dispose of in accordance with applicable laws and regulations.

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**SECTION 14. TRANSPORT INFORMATION**

**DOT**
Not dangerous goods

**IATA**
Not dangerous goods

**IMDG**
Not dangerous goods

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**SECTION 15. REGULATORY INFORMATION**

**TSCA**
All components of this product are listed on the TSCA Inventory.

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**

n-hexane

CAS-No.: 110-54-3
RQ : 5000 lbs

**SARA 311/312 Hazards**
No SARA Hazards

**SARA 302**
This product does not contain any components with a SARA 302 RQ.

**SARA 313**
This product does not contain any components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
California Prop 65
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16. OTHER INFORMATION

Date of preparation or last revision : 02/10/2017

List of references : In-house data
                   Information acquired by literature documentation

This SDS was prepared in compliance with USA OSHA Hazard Communication Standard (29 CFR 1910.1200).

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.