



### Hardtop F10/ F15 HS Comp B

In accordance with the Standard for Classification and Labeling of Chemical Substance and Safety Data Sheet,
Article 10 Paragraph 1

### Section 1. Chemical product and company identification

A. Product name : Hardtop F10/ F15 HS Comp B

Label No. : 40343

Product description : Hardener.

Product type : Liquid.

B. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** 

C. Supplier/Manufacturer : Chokwang Jotun Ltd.

96, Gwahaksandan 1-ro Gangseo-gu, Busan

South Korea

Tel: +82 51 797 6000 Fax: +82 51 711 7735 SDSJotun@jotun.com

**Emergency telephone** 

number

H.G.LEE Chokwang Jotun Ltd.

Tel: +82 51 797 6000

### Section 2. Hazards identification

A. Hazard classification : FLAMMABLE LIQUIDS - Category 3

ACUTE TOXICITY (inhalation) - Category 4

SKIN SENSITISATION - Category 1

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract

irritation) - Category 3

LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

This product is classified in accordance with the Industrial Safety and Health Act

and the Chemical Control Act.

B. GHS label elements, including precautionary statements

Symbol :





Signal word : Warning.

**Hazard statements** : H226 - Flammable liquid and vapour.

H332 - Harmful if inhaled.

H317 - May cause an allergic skin reaction. H335 - May cause respiratory irritation.

H412 - Harmful to aquatic life with long lasting effects.

**Precautionary statements** 

Date of issue/Date of revision : 09.06.2020

Hardtop F10/ F15 HS Comp B Page: 2/11

### Section 2. Hazards identification

**Prevention** 

: P280 - Wear protective gloves. Wear eye or face protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling

equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P233 - Keep container tightly closed.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P261 - Avoid breathing vapour.

P272 - Contaminated work clothing should not be allowed out of the workplace.

Response : P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep

comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water or shower.

P302 + P352 + P362 + P364 - IF ON SKIN: Wash with plenty of soap and water.

Take off contaminated clothing and wash it before reuse.

P333 + P313 - If skin irritation or rash occurs: Get medical attention.

Storage : P405 - Store locked up.

P403 - Store in a well-ventilated place.

P235 - Keep cool.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

C. Other hazards which do

not result in classification

: None known.

### Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

#### **CAS** number/other identifiers

**CAS number** : Not applicable.

**EC number** : Mixture. **Product code** : 40343

| Ingredient name  | Synonyms   | Identifiers                                       | %                 |
|--|--|---|-------------------|
| hexane, 1,6-diisocyanato-, homopolymer                                       | Hexamethylene diisocyanate, oligomers  | CAS: 28182-81-2                                   | ≥80 - <90         |
| n-butyl acetate<br>hydrocarbons, C9, aromatic<br>hexamethylene-di-isocyanate | n-butyl acetate<br>hydrocarbons, C9, aromatic<br>hexamethylene-di-<br>isocyanate | CAS: 123-86-4<br>CAS: 64742-95-6<br>CAS: 822-06-0 | <10<br><10<br><10 |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Hardtop F10/ F15 HS Comp B Page: 3/11

### Section 4. First aid measures

- A. Eye contact
- : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- **B.** Skin contact
- : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- C. Inhalation
- : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- **D.** Ingestion
- : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- E. Notes to physician
- : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments
Protection of first-aiders

- : No specific treatment.
- : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

### Section 5. Firefighting measures

A. Extinguishing media

Suitable extinguishing media

: Use dry chemical, CO2, water spray (fog) or foam.

Unsuitable extinguishing media

: Do not use water jet.

- B. Specific hazards arising from the chemical
- : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products

 Decomposition products may include the following materials: carbon dioxide

carbon monoxide nitrogen oxides

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

Hardtop F10/ F15 HS Comp B Page: 4/11

## Section 5. Firefighting measures

Special precautions for fire-fighters

: 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

### Section 6. Accidental release measures

- A. Personal precautions, protective equipment and emergency procedures
- : 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- B. Environmental precautions
- : Avoid dispersal of spilt 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). Water polluting material. May be harmful to the environment if released in large quantities.
- C. Methods and material for containment and cleaning up

**Small spill** 

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

#### A. Precautions for safe handling

**Protective measures** 

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

- : 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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- B. Conditions for safe storage, including any incompatibilities
- : Store in accordance with local regulations. Store in a segregated and approved area. 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. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Hardtop F10/ F15 HS Comp B Page: 5/11

## Section 8. Exposure controls/personal protection

#### A. Control parameters

**Occupational exposure limits** 

| Ingredient name             | Exposure limits                  |
|-----------------------------|----------------------------------|
| n-butyl acetate             | Ministry of Employment and Labor |
| •                           | (Republic of Korea, 7/2018).     |
|                             | STEL: 200 ppm 15 minutes.        |
|                             | TWA: 150 ppm 8 hours.            |
| hexamethylene-di-isocyanate | Ministry of Employment and Labor |
| •                           | (Republic of Korea, 7/2018).     |
|                             | TWA: 0.005 ppm 8 hours.          |

# B. Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

# **Environmental exposure controls**

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

#### C. Personal protective equipment

#### **Respiratory protection**

: If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.

### Eye protection Hand protection

- : Use safety eyewear designed to protect against splash of liquids.
- : There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to EN374.

Recommended, gloves(breakthrough time) > 8 hours: Teflon, polyvinyl alcohol (PVA) May be used, gloves(breakthrough time) 4 - 8 hours: 4H, butyl rubber, nitrile rubber Not recommended, gloves(breakthrough time) < 1 hour: neoprene, PVC, Viton®, PE

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

#### **Body protection**

: 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

#### **Skin protection**

Personnel should wear antistatic clothing made of natural fibres or of hightemperature-resistant synthetic fibres. Hardtop F10/ F15 HS Comp B Page: 6/11

## Section 8. Exposure controls/personal protection

**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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## Section 9. Physical and chemical properties

A. Appearance

Physical state : Liquid.
Colour : Clear.

B. Odour : Characteristic.
C. Odour threshold : Not available.
D. pH : Not applicable.
E. Melting/freezing point : Not applicable.

F. Boiling point/boiling : Lowest known value: 126°C (258.8°F) (n-butyl acetate). Weighted average:

range 149.25°C (300.6°F) **G. Flash point** : Closed cup: 47°C (116.6°F)

Burning time : Not applicable.
Burning rate : Not applicable.

H. Evaporation rate : 1 (n-butyl acetate) compared with butyl acetate

I. Flammability (solid, gas) : Not available.J. Lower and upper : 1.4 - 7.6%

explosive (flammable) limits

K. Vapour pressure : Highest known value: 1.5 kPa (11.3 mm Hg) (at 20°C) (n-butyl acetate). Weighted

average: 0.08 kPa (0.6 mm Hg) (at 20°C)

L. Solubility : Insoluble in the following materials: cold water and hot water.

Solubility in water : Not available.

M. Vapour density : Highest known value: 4 (Air = 1) (n-butyl acetate).

N. Relative density : 1.13 g/cm³
O. Partition coefficient: n- : Not available.

octanol/water

P. Auto-ignition : Lowest known value: 280 to 470°C (536 to 878°F) (hydrocarbons, C9, aromatic).

temperature
Q. Decomposition

temperature

: Not available.

SADT : Not available.

R. Viscosity : Not available.

S. Molecular weight : Not applicable.

### Section 10. Stability and reactivity

A. Chemical stability : The product is stable.

**Possibility of hazardous**: Under normal conditions of storage and use, hazardous reactions will not occur. reactions

B. Conditions to avoid
 Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

C. Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

D. Hazardous : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Date of issue/Date of revision : 09.06.2020

Hardtop F10/ F15 HS Comp B Page: 7/11

## **Section 11. Toxicological information**

A. Information on likely routes of exposure

: Not available.

#### Potential acute health effects

Inhalation : Harmful if inhaled. May cause respiratory irritation.Ingestion : No known significant effects or critical hazards.

**Skin contact**: May cause an allergic skin reaction.

**Eye contact**: No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

**Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation

coughing

**Ingestion**: No specific data.

**Skin contact** : Adverse symptoms may include the following:

irritation redness

Eye contact : No specific data.

#### B. Health hazards

#### **Acute toxicity**

| Product/ingredient name         | Result   | Species       | Dose                                      | Exposure          |
|---------------------------------|--|---------------|---|-------------------|
| n-butyl acetate                 | LC50 Inhalation Vapour<br>LD50 Dermal<br>LD50 Oral | Rabbit<br>Rat | >21.1 mg/l<br>>17600 mg/kg<br>13100 mg/kg | 4 hours<br>-<br>- |
| hexamethylene-di-<br>isocyanate | LC50 Inhalation Dusts and mists                    | Rat           | 124 mg/m³                                 | 4 hours           |

#### **Irritation/Corrosion**

| Product/ingredient name                  | Result                   | Species                            | Score | Exposure | Observation |
|--|--------------------------|------------------------------------|-------|----------|-------------|
| Hexamethylene<br>diisocyanate, oligomers | Eyes - Moderate irritant | Rabbit                             | -     | 100 mg   | -           |
| , ,                                      | Skin - Moderate irritant | Rabbit                             | -     | 500 mg   | -           |
| hexamethylene-di-<br>isocyanate          | Skin - Mild irritant     | Mammal -<br>species<br>unspecified | -     | -        | -           |
|  | Eyes - Mild irritant     | Mammal -<br>species<br>unspecified | -     | -        | -           |

#### **Sensitisation**

| Product/ingredient name               | Route of exposure | Species                      | Result      |
|---------------------------------------|-------------------|------------------------------|-------------|
| Hexamethylene diisocyanate, oligomers | skin              | Mammal - species unspecified | Sensitising |
| hexamethylene-di-<br>isocyanate       | skin              | Mammal - species unspecified | Sensitising |

#### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

#### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

Not available.

Hardtop F10/ F15 HS Comp B Page: 8/11

## **Section 11. Toxicological information**

#### Specific target organ toxicity (single exposure)

| Name                                  | Category   | Route of exposure | Target organs                |
|---------------------------------------|------------|-------------------|------------------------------|
| Hexamethylene diisocyanate, oligomers | Category 3 | Not applicable.   | Respiratory tract irritation |
| n-butyl acetate                       | Category 3 | Not applicable.   | Narcotic effects             |
| hydrocarbons, C9, aromatic            | Category 3 | Not applicable.   | Narcotic effects             |
|                                       | Category 3 | Not applicable.   | Respiratory tract irritation |
| hexamethylene-di-isocyanate           | Category 3 | Not applicable.   | Respiratory tract irritation |

#### Specific target organ toxicity (repeated exposure)

Not available.

#### **Aspiration hazard**

| Name                       | Result                         |
|----------------------------|--------------------------------|
| hydrocarbons, C9, aromatic | ASPIRATION HAZARD - Category 1 |

#### Potential chronic health effects

#### **Chronic toxicity**

Not available.

General: Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Carcinogenicity
 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.

#### **ATE value**

| Route | Result                   |
|-------|--------------------------|
|       | 333.33 mg/l<br>1.67 mg/l |

## **Section 12. Ecological information**

#### A. Aquatic and terrestrial toxicity

**Ecotoxicity**: This material is harmful to aquatic life with long lasting effects.

| Product/ingredient name    | Result              | Species | Exposure |
|----------------------------|---------------------|---------|----------|
| hydrocarbons, C9, aromatic | Acute EC50 <10 mg/l | Daphnia | 48 hours |
|                            | Acute IC50 <10 mg/l | Algae   | 72 hours |
|                            | Acute LC50 <10 mg/l | Fish    | 96 hours |

#### B. Persistence and degradability

| Product/ingredient name    | Aquatic half-life | Photolysis | Biodegradability |
|----------------------------|-------------------|------------|------------------|
| hydrocarbons, C9, aromatic | -                 | -          | Not readily      |

#### C. Bioaccumulative potential

Hardtop F10/ F15 HS Comp B

## **Section 12. Ecological information**

| Product/ingredient name                       | LogPow | BCF   | Potential   |
|---|--------|-------|-------------|
| Hexamethylene<br>diisocyanate, oligomers      | 5.54   | 367.7 | low         |
| n-butyl acetate<br>hydrocarbons, C9, aromatic | 2.3    |       | low<br>high |
| hexamethylene-di-<br>isocyanate               | 0.02   | 57.63 | low         |

D. Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

E. Other adverse effects : No known significant effects or critical hazards.

### Section 13. Disposal considerations

- A. Disposal methods
- : The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- **B.** Disposal precautions
- : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## **Section 14. Transport information**

|                                  | UN  | IMDG                         | IATA           |
|----------------------------------|---|------------------------------|----------------|
| A. UN number                     | UN1866  | UN1866                       | UN1866         |
| B. UN proper shipping name       | Resin solution  | Resin solution               | Resin solution |
| C. Transport<br>hazard class(es) | 3   | 3                            | 3              |
| D. Packing group                 | III   | III                          | III            |
| E. Environmental hazards         | No.   | No.                          | No.            |
| F. Additional information        | Tunnel restriction code: (D/E)<br>Hazard identification number:<br>30 | Emergency schedules F-E, S-E | -              |

Special precautions for user

: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

Hardtop F10/ F15 HS Comp B Page: 10/11

## Section 15. Regulatory information

#### A. Regulation according to ISHA

**ISHA** article 37

(Harmful substances prohibited from manufacture)

: None of the components are listed.

**ISHA** article 38

(Harmful substances requiring permission) : None of the components are listed.

**Article 2 of Youth** 

**Protection Act on Substances Hazardous**  : Not applicable.

to Youth

#### **Exposure Limits of Chemical Substances and Physical Factors**

The following components have an OEL:

n-butyl acetate

hexamethylene-di-isocyanate

**ISHA Enforcement Regs**: None of the components are listed.

Annex 11-3 (Exposure standards established for harmful factors)

**ISHA Enforcement Regs**: None of the components are listed. Annex 11-5 (Harmful

factors subject to Work

**Environment** 

**Measurement)** 

ISHA Enforcement Regs

Annex 12-2 (Harmful **Factors Subject to Special Health Check-**

up)

**Standard of Industrial** 

**Safety and Health Annex 12 (Hazardous** substances subject to control)

: None of the components are listed.

: None of the components are listed.

B. Regulation according to Chemicals Control Act

**CCA Article 11 (TRI)** 

: None of the components are listed. : None of the components are listed.

**CCA Article 18 Prohibited (K-Reach** 

Article 27)

**CCA Article 19 Subject** : None of the components are listed.

to authorization (K-**Reach Article 25)** 

**CCA Article 20 Toxic Chemicals (K-Reach** 

Article 20)

: Not applicable

**CCA Article 20** Restricted (K-Reach

Article 27)

: None of the components are listed.

**CCA Article 39** (Accident Precaution

Chemicals)

: None of the components are listed.

**Existing Chemical Substances Subject to** 

Registration

: The following components are listed: Hexamethylene diisocyanate

Hardtop F10/ F15 HS Comp B Page: 11/11

## Section 15. Regulatory information

C. Dangerous Materials

: Class: Class 4 - Flammable Liquid

Safety Management Act Item: 4. Class 2 petroleums - Water-insoluble liquid

Threshold: 1000 L Danger category: III

Signal word: Contact with sources of ignition prohibited

D. Wastes regulation : Dispose of contents and container in accordance with all local, regional, national

and international regulations.

E. Regulation according to other foreign laws

**International regulations** 

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

**Stockholm Convention on Persistent Organic Pollutants** 

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)** 

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals** 

Not listed.

### Section 16. Other information

A. References : Not available.B. Date of issue/Date of : 09.06.2020

revision

**C. Version** : 1.02

Date of printing : 09.06.2020

D. Other

✓ Indicates information that has changed from previously issued version.

**Key to abbreviations** : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

#### **Notice to reader**

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.