# SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : Jotun Zinc 100 Comp B

Product code : 11420
Product description : Paint.
Product type : Solid.

Other means of identification

1.2 Relevant identified uses of the substance or mixture and uses advised against

: Not available.

**Identified uses** 

Uses in Coatings - Industrial use
Uses in Coatings - Professional use

#### 1.3 Details of the supplier of the safety data sheet

MANUFACTURER/SUPPLIER: Jotun Paints (Europe) Ltd. Stather Road Flixborough, Scunthorpe North Lincolnshire DN15 8RR England

Tel: +44 17 24 40 00 00 Fax: +44 17 24 40 01 00 SDSJotun@jotun.com

#### 1.4 Emergency telephone number

Contact NHS Direct; phone 0845 4647 or 111. Open 24/7.

# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Aquatic Acute 1, H400 Aquatic Chronic 1, H410

2.2 Label elements

Hazard pictograms :



Signal word : Warning.

**Hazard statements** : Very toxic to aquatic life with long lasting effects.

**Precautionary statements** 

General : Not applicable.

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#### SECTION 2: Hazards identification

**Prevention**: Avoid release to the environment.

Response : Collect spillage.
Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Supplemental label

elements

: Not applicable.

#### 2.3 Other hazards

Other hazards which do not result in classification

: None known.

# **SECTION 3: Composition/information on ingredients**

Substance/mixture : Mixture

			Classification		
Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Туре	Notes
zinc	EC: 231-175-3 CAS: 7440-66-6	≥90	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1] [2]	-
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤5	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]	-
			See Section 16 for the full text of the H statements declared above.		

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, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

#### <u>Type</u>

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

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

### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give

anything by mouth to an unconscious person. If unconscious, place in recovery

position and seek medical advice.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is

irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by

trained personnel.

**Skin contact**: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and

water or use recognised skin cleanser. Do NOT use solvents or thinners.

**Eye contact**: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

**Ingestion** : If swallowed, seek medical advice immediately and show the container or label.

Keep person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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#### SECTION 4: First aid measures

#### 4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. Coating powders can cause localised skin irritation in folds of the skin or under tight clothing.

#### Potential acute health effects

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

Eye contact: No specific data.Inhalation: No specific data.Skin contact: No specific data.Ingestion: No specific data.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

**Specific treatments**: No specific treatment.

# SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing

media

: Recommended: alcohol-resistant foam, CO<sub>2</sub> blanket, water spray or mist.

Unsuitable extinguishing

media

: Do not use water jet.

Do not use inert gas under high pressure (e.g. CO2).

#### 5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

: This material is very toxic 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: metal oxide/oxides

#### 5.3 Advice for firefighters

Special protective actions 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.

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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#### SECTION 6: Accidental release measures

## 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: 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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

#### **6.2 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. Collect spillage.

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

**Small spill** 

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

Large spill

: Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

#### 6.4 Reference to other sections

: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

# **SECTION 7: Handling and storage**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 7.1 Precautions for safe handling

Precautions should be taken to prevent the formation of dusts in concentrations above flammable, explosive or occupational exposure limits.

Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources.

Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.

Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

Keep away from heat, sparks and flame.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Put on appropriate personal protective equipment (see Section 8).

Always keep in containers made from the same material as the original one.

Comply with the health and safety at work laws.

Do not allow to enter drains or watercourses.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

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

Store in accordance with local regulations.

#### Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep container tightly closed.

Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

#### 7.3 Specific end use(s)

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# SECTION 7: Handling and storage

Recommendations Industrial sector specific : Not available. : Not available.

solutions

# **SECTION 8: Exposure controls/personal protection**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 8.1 Control parameters

#### Occupational exposure limits

Dust Limit: 10 mg/m3 (TWA of total inhalable dust) and 4 mg/m3 (TWA of respirable)

Product/ingredient name	Exposure limit values
zinc	EH40-MEL (United Kingdom (UK), 2002). STEL: 10 mg/m³ 15 minutes. TWA: 5 mg/m³ 8 hours.

# procedures

**Recommended monitoring**: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### **Derived no effect levels**

Product/ingredient name	Type	Exposure	Value	Population	Effects
zinc oxide	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	5 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	2,5 mg/m³	Consumers	Systemic
	DNEL	Long term Oral	0,83 mg/ kg bw/day	Consumers	Systemic

#### Predicted no effect concentrations

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
zinc oxide	PNEC	Fresh water	20,6 μg/l	-
	PNEC	Marine	6,1 µg/l	-
	PNEC	Sewage Treatment	52 μg/l	-
		Plant		
	PNEC	Fresh water sediment	117,8 mg/kg dwt	-
	PNEC	Marine water sediment	56,5 mg/kg dwt	-
	PNEC	Soil	35,6 mg/kg dwt	-

#### 8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

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# 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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

: Safety eyewear complying to EN 166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with sideshields.

#### Skin protection

#### **Hand protection**

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

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

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: nitrile rubber

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.

#### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### **Respiratory protection**

If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist. (FFP2 / N95).

#### **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.

# **SECTION 9: Physical and chemical properties**

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

#### **Appearance**

**Physical state** : Solid. Colour : Grey. **Odour** : Odourless. **Odour threshold** : Not applicable. pН : Not applicable. Melting point/freezing point : Not applicable. Initial boiling point and : Not available.

boiling range

Flash point : Not available. **Evaporation rate** : Not available.

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# SECTION 9: Physical and chemical properties

Flammability (solid, gas) : Not applicable. **Burning time** Not available. Not available. **Burning rate** 

Upper/lower flammability or

explosive limits

Vapour pressure : Not available.

: Highest known value: 5.47 (Air = 1) (zinc oxide). Vapour density

**Relative density** : 7.14 g/cm<sup>3</sup>

Solubility(ies) : Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/ : Not available.

water

**Auto-ignition temperature** : Not applicable. **Decomposition temperature** : Not available.

**Viscosity** : Kinematic (40°C): >0,205 cm<sup>2</sup>/s (>20,5 mm<sup>2</sup>/s)

**Explosive properties** : Not available. : Not available. **Oxidising properties** 

#### 9.2 Other information

No additional information.

# SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability The product is stable.

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

hazardous reactions

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : Not applicable.

10.6 Hazardous : Under normal conditions of storage and use, hazardous decomposition products

should not be produced. decomposition products

# **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. Coating powders can cause localised skin irritation in folds of the skin or under tight clothing.

Inhalation of zinc fumes may induce influenza (zinc fever), which usually may last for two days.

#### **Acute toxicity estimates**

Not available.

#### **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
zinc	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

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

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# **SECTION 11: Toxicological information**

Not available.

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

Not available.

#### **Aspiration hazard**

Not available.

#### Potential acute health effects

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.
 Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

#### Potential chronic health effects

General : 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.

# **SECTION 12: Ecological information**

#### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
zinc	Acute LC50 330 µg/l Fresh water Acute LC50 0,78 mg/l Fresh water		48 hours 96 hours
zinc oxide	Acute LC50 1,1 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

**Conclusion/Summary** 

: Water polluting material. May be harmful to the environment if released in large quantities. This material is very toxic to aquatic life with long lasting effects.

#### 12.2 Persistence and degradability

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
zinc zinc oxide	-		Not readily Not readily

#### 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
zinc oxide	-	60960	high

#### 12.4 Mobility in soil

Soil/water partition : Not available.

coefficient (Koc)

Mobility : Not available.

#### 12.5 Results of PBT and vPvB assessment

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# SECTION 12: Ecological information

**PBT** : Not applicable. **vPvB** : Not applicable.

12.6 Other adverse effects No known significant effects or critical hazards.

# SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 13.1 Waste treatment methods

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

**European waste catalogue** 

substances

(EWC)

# SECTION 14: Transport information

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.

This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

These zinc types have been tested according to the criteria for classes 4.1, 4.2 and 4.3. The testresults shows that these types do not meet the criterias for classifying in class 4.1, 4.2, 4.3 : BAM, 2005 Report II.2-916/04.

#### **International transport regulations**

14.1 UN number

14.2 UN proper shipping

name

14.3 Transport hazard

class(es)

: 3077

: Environmentally hazardous substance, solid, n.o.s. (zinc, zinc oxide). Marine

: 08 01 11\* Waste paint and varnish containing organic solvents or other dangerous

pollutant (zinc, zinc oxide)

: 9



**Marking** 

hazards

: The environmental hazardous / marine pollutant mark is only applicable for packages containing more than 5 litres for liquids and 5 kg for solids.

14.4 Packing group 14.5 Environmental

Yes.

14.6 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.

**Additional information** ADR / RID

: Tunnel restriction code: (-) Hazard identification number: 90

**IMDG** 

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

#### **Emergency schedules (EmS)**

F-A. S-F

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

**IMDG Code Segregation** 

: Not available.

group

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# SECTION 14: Transport information

# SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions : Not applicable.

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

**Other EU regulations** 

: Not determined. **Europe inventory** 

**Black List Chemicals** : Not listed **Industrial emissions** : Listed

(integrated pollution prevention and control) -

Air

**Industrial emissions** 

(integrated pollution prevention and control) -

Water

**Chemical Weapons** 

**Convention List Schedule I** 

**Chemicals** 

**Chemical Weapons** Convention List Schedule II

Chemicals

**Chemical Weapons** 

**Convention List Schedule III** 

Chemicals

: Not listed

: Not listed

: Listed

: Not listed

15.2 Chemical safety

assessment

: Not applicable.

#### SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and** 

: ATE = Acute Toxicity Estimate

acronyms

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

# Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification	
Aquatic Acute 1, H400	Calculation method	
Aquatic Chronic 1, H410	Calculation method	

Full text of abbreviated H

statements

: H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

**Full text of classifications** 

[CLP/GHS]

: Aquatic Acute 1, H400 **ACUTE AQUATIC HAZARD - Category 1** Aquatic Chronic 1, H410 LONG-TERM AQUATIC HAZARD - Category 1

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#### **SECTION 16: Other information**

Date of printing : 13.09.2017

Date of issue/ Date of : 13.09.2017

revision

**Date of previous issue** : 17.12.2016

Version : 3.01

#### **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.

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