SAFETY DATA SHEET



Tankguard DW Comp A

Section 1. Identif	fication
GHS product identifier	: Tankguard DW Comp A
Product code	: 9440
Other means of identification	: Not available.
Product type	: Liquid.
Product description	: Paint.
Relevant identified uses of Use in coatings - Industria Use in coatings - Professi	
Supplier's details	: 佐敦涂料(张家港)有限公司 江苏省张家港保税区扬子江化学工业园长江路15号 215634 电话: +86 512 58937988 传真: +86 512 58937986
	Jotun Coatings (Zhangjiagang) Co. Ltd No.15 Changjiang Road Jiangsu Yangtze River International Chemical Industry Park, Zhangjiagang Free Trade Zone, Jiangsu Province 215634 Tel: +86 512 58937988 Fax: +86 512 58937986
	Jotun Paints (Malaysia) Sdn Bhd, Lot 7 Persiaran Perusahaan, Section 23 40300 SHAH ALAM, Selangor Darul Ehsan Malaysia Tel: +603 51235500 Fax: +603 51235599
	SDSJotun@jotun.com
Emergency telephone number (with hours of operation)	: Jotun Coatings (Taiwan) Ltd. Co. Tel: +886 2 87705061
Section 2. Hazar	ds identification
Classification of the substance or mixture	: SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SKIN SENSITISATION - Category 1 AQUATIC TOXICITY (CHRONIC) - Category 2

GHS label elements Hazard pictograms

Signal word

: Warning.

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Section 2. Hazards identification

Hazard statements	 H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements	
Prevention	 P280 - Wear protective gloves. Wear eye or face protection. P273 - Avoid release to the environment. P261 - Avoid breathing vapour.
Response	 P391 - Collect spillage. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Storage	: Not applicable.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not	· None known

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.

Product name	% (w/w)	CAS number	Туре
epoxy-formaldehyde resin (MW<700)	≥25 - ≤50	9003-36-5	[1]
epoxy resin (MW ≤ 700)	≥10 - ≤25	1675-54-3	[1]
oxirane, 2,2'-[1,6-hexanediylbis(oxymethylene)] bis-	≤10	16096-31-4	[1]
complex mixture of diamid waxes	≤3	-	[1]
产品名称	% (w/w)	CAS号码	类型
酚醛环氧树脂(MW<700)	≥25 - ≤50	9003-36-5	[1]
环氧树脂(MW < 700)	≥10 - ≤25	1675-54-3	[1]
1,6-双(2,3-环氧丙氧基)己烷	≤10	16096-31-4	[1]
联肼蜡的络合物 ELINCS 型号. 00-06-1340-01	≤3	-	[1]

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.

<u>Type</u>

[1] Substance classified with a health or environmental hazard **Occupational exposure limits, if available, are listed in Section 8.**

Section 4. First aid measures

Description of necessary first aid measures : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower Eye contact eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 adverse health effects persist or are severe. 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. Skin contact Wash with plenty of soap and water. Remove contaminated clothing and shoes. 2 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. : Wash out mouth with water. Remove dentures if any. If material has been Ingestion 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.

Most important symptoms/effects, acute and delayed

most important symptoms/	snects, acute and delayed
Potential acute health effe	<u>cts</u>
Eye contact	: Causes serious eye irritation.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/sym	<u>ptoms</u>
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.
Indication of immediate me	dical attention and special treatment needed, if necessary
Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.
Protection of first-aiders	. No action shall be taken involving any personal risk or without suitable training

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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	: In a fire or if heated, a pressure increase will occur and the container may burst. This material is 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: carbon dioxide carbon monoxide sulfur oxides halogenated compounds metal oxide/oxides
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.

Section 6. Accidental release measures

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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
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.
Methods and material for con	ainment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. 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. 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

Precautions for safe handling	1	
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. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. 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. 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.							
Individual protection measure	<u>es</u>								
Respiratory protection	:	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other importar aspects of use.							
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 gl material. Always ensure that gloves are free from defects and that they are stored and us correctly. The performance or effectiveness of the glove may be reduced by physical/che damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should no applied once exposure has occurred. Wear suitable gloves tested to ISO 374-1:2016. May be used, gloves(breakthrough time) 4 - 8 hours: polyvinyl alcohol (PVA) (> mm) Recommended, gloves(breakthrough time) > 8 hours: fluor rubber (> 0.35 mm) Viton® (> 0.7 mm), PVC (> 0.5 mm), nitrile rubber (> 0.4 mm) 								
Date of issue/Date of revision		penetration, seek advice by the supplier of chemical resistant gloves. : 14.08.2023 Date of previous issue : 18.07.2023 Version : 1.02 5/12							

Section 8. Exposure controls/personal protection

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.
: Safety eyewear complying to ISO 16321-1:2022 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: chemical splash goggles.
 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.
: 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.
: 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 and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	1	Liquid.
Colour	1	Grey, White.
Odour	:	Characteristic.
Odour threshold	:	Not available.
рН	:	Not applicable.
Melting point/freezing point	1	Not applicable.
Boiling point, initial boiling point, and boiling range	:	Not available.

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Flash point

Ingredient name		Close	d cup	Open cup			
	°C	°F	Method	°C	°F	Method	
Distillates (petroleum), hydrotreated light	>23	>73.4					
epoxy resin (MW ≤ 700)				79	174.2		
epoxy-formaldehyde resin (MW<700)	>93	>199.4	EU A.9				
oxirane, 2,2'-[1,6-hexanediylbis (oxymethylene)]bis-	>93	>199.4	EU A.9				
silane, trimethyoxy[3-(oxiranyl- methoxy)propyl]-				110	230	ASTM D 93	
2,6-ditert-butyl-p-cresol	127	260.6		126.67	260		
propylidynetrimethanol	172	341.6					
ammability	: Not a	available.	÷			÷	

Lower and upper explosion : Not applicable. limit/flammability limit Vapour pressure

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Date of issue/Date of revision

Section 9. Physical and chemical properties and safety characteristics

	l N	/apour Pres	sure at 20°C	V	apour pres	ssure at 50°C
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
epoxy-formaldehyde resin (MW<700)	0.62	0.083	EU A.4			
Distillates (petroleum), hydrotreated light	0.23 to 0.45	0.031 to 0.	06			
2,6-ditert-butyl-p-cresol	0.01	0.0013				
silane, trimethyoxy[3-(oxiranyl- methoxy)propyl]-	0.0082	0.0011				
epoxy resin (MW ≤ 700)	0	0				
talc (non-asbestos form)	0	0				
propylidynetrimethanol	0	0				
Relative vapour density	: Not av	ailable.	-		I	
Density	: 1.533	to 1.54 g/cm	3			
Solubility(ies)	:					
Media	F	Result				
cold water hot water		lot soluble lot soluble				
Partition coefficient: n- octanol/water Auto-ignition temperature	: Not ap	plicable.				
Ingredient name		°C	°F	Μ	ethod	
Distillates (petroleum), hydrotreated	l light	>220	>428			
silane, trimethyoxy[3-(oxiranyl-meth	oxy)propyl]-	400	752 DIN 51794			
Decomposition temperature	: Not av	ailable.				
/iscosity	: Kinem	atic (40°C (1	04°F)): >20.5 m	m²/s (>20.5 cSt)		
Particle characteristics Median particle size	: Not ap	plicable.				
Section 10. Stabil	ity and	reactiv	vity			
Chemical stability	•	roduct is sta	•			
Possibility of hazardous reactions	: Unde	r normal con	ditions of storage	e and use, hazaı	dous react	ions will not occur.
Conditions to avoid	: No sp	ecific data.				
Incompatible materials	: No sp	ecific data.				
Hazardous decomposition products		r normal con d not be proc		e and use, hazaı	dous decor	mposition products

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
epoxy resin (MW ≤ 700)	LD50 Dermal LD50 Oral		20 g/kg 15600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
epoxy-formaldehyde resin (MW<700)	Skin - Mild irritant	Mammal - species unspecified	-	-	-
epoxy resin (MW ≤ 700)	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
oxirane, 2,2'- [1,6-hexanediylbis (oxymethylene)]bis-	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result	
epoxy-formaldehyde resin (MW<700)	skin	Mammal - species unspecified	Sensitising	
epoxy resin (MW ≤ 700)	skin	Mammal - species unspecified	Sensitising	
oxirane, 2,2'- [1,6-hexanediylbis (oxymethylene)]bis-	skin	Mammal - species unspecified	Sensitising	

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Eye contact

Information on likely routes : Not available. of exposure

Potential acute health effects

: Causes serious eye irritation.

Section 11. Toxicological information

	gioar miormation	
Inhalation	No known significant effects or critical hazards.	
Skin contact	Causes skin irritation. May cause an allergic skin reaction.	
Ingestion	No known significant effects or critical hazards.	
Symptoms related to the phy	I, chemical and toxicological characteristics	
Eye contact	Adverse symptoms may include the following: pain or irritation watering redness	
Inhalation	No specific data.	
Skin contact	Adverse symptoms may include the following: rritation edness	
Ingestion	No specific data.	
Delayed and immediate effect	s well as chronic effects from short and long-term exposure	
Short term exposure		
Potential immediate effects	Not available.	
Potential delayed effects	Not available.	
Long term exposure		
Potential immediate effects	Not available.	
Potential delayed effects	Not available.	
Potential chronic health eff		
Not available.		
General	Once sensitized, a severe allergic reaction may occur when subsequently ex o very low levels.	<posed< td=""></posed<>
Carcinogenicity	No known significant effects or critical hazards.	
Mutagenicity	No known significant effects or critical hazards.	
Reproductive toxicity	No known significant effects or critical hazards.	
Numerical measures of toxic		

Acute toxicity estimates

N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure	
epoxy-formaldehyde resin (MW<700)	Acute EC50 2 mg/l	Daphnia	24 hours	
· · · · · · · · · · · · · · · · · · ·	Acute LC50 2 mg/l	Fish	96 hours	
epoxy resin (MW ≤ 700)	Acute EC50 1.4 mg/l	Daphnia	48 hours	
	Acute LC50 3.1 mg/l	Fish - pimephales promelas	96 hours	
	Chronic NOEC 0.3 mg/l	Fish	21 days	
oxirane, 2,2'-	Acute EC50 47 mg/l	Daphnia	48 hours	
[1,6-hexanediylbis (oxymethylene)]bis-				
	Acute LC50 30 mg/l	Fish - Cyprinidae (Leuciscus idus)	96 hours	

Section 12. Ecological information

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
epoxy-formaldehyde resin (MW<700)	-	-	Not readily
epoxy resin (MW ≤ 700)	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
epoxy-formaldehyde resin (MW<700)	2.7	-	low
epoxy resin (MW ≤ 700) oxirane, 2,2'- [1,6-hexanediylbis (oxymethylene)]bis-	2.64 to 3.78 0.822	31 -	low low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

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

Section 13. Disposal considerations

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. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	ΙΑΤΑ
UN number	UN3082	UN3082	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (epoxy-formaldehyde resin (MW<700))	Environmentally hazardous substance, liquid, n.o.s. (epoxy-formaldehyde resin (MW<700)). Marine pollutant (epoxy-formaldehyde resin (MW<700), epoxy resin (MW ≤ 700))	Environmentally hazardous substance, liquid, n.o.s. (epoxy-formaldehyde resin (MW<700))
Transport hazard class(es)	9	9	9
Packing group			
Date of issue/Date of rev	ision : 14.08.2023 Date of	f previous issue : 18.07.2023	Version : 1.02 10/12

Section 14 Transport information

Environmental hazards	Yes.		Yes.	Yes.	
Additional inform	ation			· · · · ·	
UN		or ≤5		rous good when transported in sizes o the general provisions of 4.1.1.1, 4.1.	
ADR/RID			el restriction code: (-) rd identification number: 90		
IMDG		or ≤5 and 4 <u>Eme</u>	kg, provided the packagings meet t 4.1.1.4 to 4.1.1.8. rgency schedules F-A, S-F	rous good when transported in sizes o he general provisions of 4.1.1.1, 4.1.	
		Segr	egation Group: -		
ΙΑΤΑ		or ≤5	product is not regulated as a danger kg, provided the packagings meet t .6.1.1 and 5.0.2.8.	rous good when transported in sizes on the general provisions of 5.0.2.4.1,	of ≤5 L
Special precautior	is for user	uprig		ays transport in closed containers tha transporting the product know what to	
Transport in bulk a to IMO instrument		: Not a	vailable.		

Section 15. Regulatory information

TCCSCA List of toxic chemicals

Not applicable.

TCCSCA List of concerned chemicals

Not applicable.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

Procedure used to derive the classification

	Classification	Justification
SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SKIN SENSITISATION - Category 1 AQUATIC TOXICITY (CHRONIC) - Category 2		Calculation method Calculation method Calculation method Calculation method
References	: Not available.	
Organisation that prepared the SDS	: Jotun AS, Norway +47 33 45 70 00	

Section 16. Other information

<u>History</u>	
Date of printing	: 14.08.2023
Date of previous issue	: 18.07.2023
Version	: 1.02
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 = Internediate 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) N/A = Not available SGG = Segregation Group UN = United Nations

✓ Indicates information that has changed from previously issued version.

Notice to reader

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

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