SAFETY DATA SHEET



SteelMaster 600WF

Section 1. Identi	fication
GHS product identifier	: SteelMaster 600WF
Product code	: 36962
Other means of identification	: Not available.
Product type	: Liquid.
Product description	: Waterborne paint.
	f the substance or mixture and uses advised against
Use in coatings - Industri Use in coatings - Profess	
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	: CARCINOGENICITY - Category 2 REPRODUCTIVE TOXICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
GHS label elements	
Hazard pictograms	

Signal word

: Warning.

Section 2. Hazards identification

Hazard statements	 H351 - Suspected of causing cancer. H361 - Suspected of damaging fertility or the unborn child. H373 - May cause damage to organs through prolonged or repeated exposure. (urinary tract)
Precautionary statements	
Prevention	 P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing and eye or face protection. P260 - Do not breathe vapour or spray.
Response	: P308 + P313 - IF exposed or concerned: 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. 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
melamine	≥10 - ≤25	108-78-1	[1]
propan-2-ol	≤3	67-63-0	[1] [2]
C(M)IT/MIT (3:1)	<0.0025	55965-84-9	[1]
产品名称	% (w/w)	CAS号码	类型
三聚氰胺	≥10 - ≤25	108-78-1	[1]
2-丙醇	≤3	67-63-0	[1] [2]
5-氯-2-甲基-1-异噻唑啉-3-酮和 2-甲基-1-异 噻唑啉-3-酮的混合物	<0.0025	55965-84-9	[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.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit

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

Section 4. First aid measures

Description of necessary f	<u>t aid measures</u>				
Eye contact	5	eyes with plenty of water, and remove any contact cal attention.	, ,		
Inhalation	If not breathing, if b artificial respiration person providing ai unconscious, place Maintain an open a waistband. In case	resh air and keep at rest i preathing is irregular or if i or oxygen by trained pers d to give mouth-to-mouth in recovery position and irway. Loosen tight cloth of inhalation of decompo- kposed person may need	respiratory arrest or sonnel. It may be d resuscitation. Get get medical attention ing such as a collar position products in a	ccurs, provide langerous to the t medical attentio on immediately. r, tie, belt or a fire, symptoms i	n. If may
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Section 4. First aid measures

	for 48 hours.
Skin contact	 Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. 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. 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

Potential acute health effects	
Eye contact	: No known significant effects or critical hazards.
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/sympto	<u>ms</u>
Eye contact	: No specific data.
Inhalation	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Indication of immediate medic	al attention and special treatment needed, if necessary
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	: No specific treatment.

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.

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.

Section 5. Firefighting measures

•	-
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides 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).
Methods and material for con	ntai	inment 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

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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
Advice on general occupational hygiene	 reuse container. 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.

Section 7. Handling and storage

Conditions for safe storage,	: Store in accordance with local regulations. Store in original container protected
including any	from direct sunlight in a dry, cool and well-ventilated area, away from incompatible
incompatibilities	materials (see Section 10) and food and drink. Store locked up. 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

Ingredient name		Exposure limits
propan-2-ol		TW Minstry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 3/2018). STEL: 500 ppm 15 minutes. STEL: 1228.75 mg/m ³ 15 minutes. TWA: 400 ppm 8 hours. TWA: 983 mg/m ³ 8 hours.
Biological exposure indice No exposure indices known.		
Appropriate engineering controls	:	If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
dividual protection measu	ires	
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 important 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 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/chemic 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 ISO 374-1:2016. Recommended, gloves(breakthrough time) > 8 hours: nitrile rubber (> 0.4 mm), butyl rubber (> 0.4 mm), Viton® (> 0.7 mm), 4H/Silver Shield® (> 0.07 mm), neoprene (> 0.35 mm) May be used, gloves(breakthrough time) 4 - 8 hours: Teflon (> 0.35 mm), PVC (> 0.5 mm)
		Not recommended, gloves(breakthrough time) < 1 hour: polyvinyl alcohol (PVA) (> 0.3 mm) 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.

Section 8. Exposure controls/personal protection

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Eye protection	: 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: safety glasses with side-shields.
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.
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.

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.

<u>Appearance</u>	
Physical state	: Liquid.
Colour	: White.
Odour	: Characteristic.
Odour threshold	: Not available.
рН	: 8 to 9
Melting point/freezing point	: 0
Boiling point, initial boiling point, and boiling range	: Not available.
Flash point	: Closed cup: Not applicable.
Flammability	: Not available.
Lower and upper explosion limit/flammability limit	: 0.6 - 12%
Vapour pressure	:

Vapour pressure

	Va	oour Pressu	re at 20°C	V	apour pres	ssure at 50°C
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
melamine	3525000	469961.4				
propan-2-ol	33	4.4				
formic acid	32.04	4.3	EU A.4			
water	17.5	2.3				
glyoxal	15.15	2	EU A.4			
2-amino-2-methylpropanol	0.34	0.045	ASTM E 1194			
propanoic acid, 2-methyl-, monoester with 2,2,4-trimethyl- 1,3-pentanediol	0.0098	0.0013	EU A.4			
pentaerythritol	0.00000026	0.000000035				
polyphosphoric acids, ammonium salts	0	0				
1,3-propanediol, 2,2'-[oxybis (methylene)]bis[2-(hydroxymethyl)-	0	0				
ate of issue/Date of revision	1 : 14.08.2	023 Date of p	revious issue	: 18.07.2023	1	Version : 1.02 6/

Section 9. Physical and chemical properties and safety characteristics

propylidynetrimethanol	0	0			
Relative vapour density	: No	ot available.	•		
Density	: 1.4	424 g/cm³			
Solubility(ies)	:				
Media		Result			
cold water		Easily soluble			
hot water		Easily soluble			
Partition coefficient: n-	: No	ot applicable.			

octanol/water

Auto-ignition temperature

Ingredient name	°C	°F	Method	
glyoxal	285	545	DIN 51794	
propanoic acid, 2-methyl-, monoester with 2,2,4-trimethyl-1,3-pentanediol	393	739.4		
formic acid	434	813.2		
2-amino-2-methylpropanol	438	820.4	ASTM D 2161	
melamine	>400	>752	EU A.16	
pentaerythritol	>400	>752	EU A.16	
1,3-propanediol, 2,2'-[oxybis(methylene)]bis[2- (hydroxymethyl)-	>400	>752	EU A.16	
propan-2-ol	456	852.8		

: Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)

Decomposition temperature : Not available.

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Viscosity
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Particle characteristics
Median particle size
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: Not applicable.

Section 10. Stability and reactivity

Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
melamine	LD50 Oral	Rat	3161 mg/kg	-
propan-2-ol	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
C(M)IT/MIT (3:1)	LD50 Oral	Rat	53 mg/kg	-

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
melamine	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
propan-2-ol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitisation

•	Route of exposure	Species	Result
C(M)IT/MIT (3:1)	skin	Mammal - species unspecified	Sensitising

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
melamine	-	Positive	-		Oral: 89 mg/kg	days

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name		Route of exposure	Target organs
propan-2-ol	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name		Route of exposure	Target organs
melamine	Category 2	-	urinary tract

Aspiration hazard

Not available.

Information on likely routes : Not available. of exposure

Potential acut	e health effects
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Eye contact	: No known significant effects or critical hazards.
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	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations

Section 11. Toxicological information

Skin contact	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations	
Ingestion	: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations	

Delayed and immediate effect	:ts	as well as chronic effects from short and long-term exposure
Short term exposure		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
<u>Long term exposure</u>		
Potential immediate effects	1	Not available.
Potential delayed effects	:	Not available.
Potential chronic health eff	<u>ect</u>	<u>s</u>
Not available.		
General	:	May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity	:	Suspected of causing cancer. Risk of cancer depends on duration and exposure.
Mutagenicity	1	No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	(mg/kg)	(gases)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
propan-2-ol C(M)IT/MIT (3:1)	N/A 53			N/A 0.5	N/A N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
propan-2-ol	Acute EC50 10100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours
C(M)IT/MIT (3:1)	Acute EC50 0.048 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 0.0052 mg/l	Algae - Skeletonema costatum	48 hours
	Acute EC50 0.1 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.22 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Acute NOEC 0.00064 mg/l	Algae - Skeletonema costatum	48 hours
	Chronic NOEC 0.0012 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Chronic NOEC 0.004 mg/l	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.098 mg/l	Fish - Oncorhynchus mykiss	28 days

level of

Section 12. Ecological information

Persistence and degradabilit	<u>х</u>		
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
C(M)IT/MIT (3:1)	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
melamine	-1.22	-	low
propan-2-ol	0.05		low
C(M)IT/MIT (3:1)	-		low

Mobility in soil

Soil/water partition	: Not available.
coefficient (Koc)	

Other adverse effects : 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	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

- 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 bulk according : Not available. to IMO instruments

Date of issue/Date of revision

Section 15. Regulatory information

TCCSCA List of toxic chemicals

Listed no.	Series no.	Ingredient name	RQ	Class 1	Class 2	Class 3	Class 4
185	1	melamine	-	-	-	-	Listed

TCCSCA List of concerned chemicals

Not applicable.

OSHA Enforcement Rules : This product contains substances "Specially hazardous to health": propan-2-ol. **Article 28**

Priority management chemicals, Article 2

Chemical substances possessing physical hazards or health hazards (Article 2.2 (II))

Ingredient name	Name on list	Concentration
	isopropyl alcohol 1,2-benzisothiazole-3-one	≤3 ≤0.1

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		
CARCINOGENICITY - Catego REPRODUCTIVE TOXICITY SPECIFIC TARGET ORGAN		Calculation method Calculation method Calculation method		
References	: Not available.			
Organisation that prepared the SDS	: Jotun AS, Norway +47 33 45 70 00			
<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 = International Air Transport Association IBC = 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.				

Section 16. Other information

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.