**JOTUN** 

Jotun Protects Property

# SAFETY DATA SHEET



Section 1. Ident	ification
Product name	: Jotun Thinner No. 52
Product code	: 43282
Product type	: Liquid.
Product description	: Thinner.
Relevant identified uses	of the substance or mixture and uses advised against
	Identified uses
Use in coatings - Industria	al use
Supplier's details	<ul> <li>: 佐敦涂料(张家港)有限公司 中国江苏扬子江国际化学工业园南海路39号 215634 电话: +86 512 58937988 传真: +86 512 58937986</li> <li>Jotun Coatings (Zhangjiagang) Co. Ltd NO.39 Nanhai Road Jiangsu Yangtze River International Chemical Industry Park, Jiangsu Province 215634 China Tel: +86 512 58937988</li> <li>Fax: +86 512 58937986</li> <li>中远佐敦船舶涂料(青岛)有限公司 中国山东省青岛市高新技术产业开发区春阳路南侧、华贯路东侧, 266109 总机电话: +86-532-68689888</li> <li>总机传真: +86-532-66726750</li> <li>Jotun COSCO Marine Coatings (Qingdao) Co. Ltd. South of Chunyang Road and East of Huaguan Road, Qingdao National High-tech Industrial Development Zone, Qingdao 266109, China Tel: +86-532-6689888</li> <li>Fax: +86-532-66726750</li> <li>SDSJotun@jotun.com</li> </ul>
Emergency telephone number	: Emergency Services for Chemical Incident of China. Tel: +86 532 83889090

# Section 2. Hazards identification

Classification of the substance or mixture	<ul> <li>FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2</li> </ul>
GHS label elements	
Hazard pictograms	
Signal word	: Warning.
Date of issue	: 27.12.2019

### Section 2. Hazards identification

Hazard statements	: H226 - Flammable liquid and vapour.
	H335 - May cause respiratory irritation.
	H336 - May cause drowsiness or dizziness.
	H411 - Toxic to aquatic life with long lasting effects.
Precautionary statemen	ts
Prevention	: P261 - Avoid breathing vapour.
	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed.
	P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment.
Response	<ul> <li>P391 - Collect spillage.</li> <li>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.</li> </ul>
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.

### Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
Other means of identification	:	Not available.
CAS number/other identifier	<u>'S</u>	
CAS number	:	Not applicable.
EC number	:	Mixture.
Product code	:	43282
Ingredient name		

Ingredient name	%	CAS number	
hydrocarbons, C9, aromatic	≥50 - ≤75	64742-95-6	

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.

### Section 4. First aid measures

#### Description of necessary first aid measures Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower evelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs. 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. Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

# Section 4. First aid measures

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 necessary, call a poison center or physician. 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/e		ts, acute and delayed		
Potential acute health effe				
Eye contact		No known significant effects or critical hazards.		
Inhalation		May cause drowsiness or dizziness. May cause respiratory irritation.		
Skin contact		No known significant effects or critical hazards.		
Ingestion		No known significant effects or critical hazards.		
<u>Over-exposure signs/symp</u>				
Eye contact	:	No specific data.		
Inhalation	:	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness		
Skin contact	:	No specific data.		
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	1	No specific treatment.		
Protection of first-aiders	:	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.		

#### See toxicological information (Section 11)

# Section 5. Firefighting measures

Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
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 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
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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

### Section 5. Firefighting measures

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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		
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. 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.
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".
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	Ita	inment 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

Precautions for safe handling	:	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 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.

# Section 8. Exposure controls/personal protection

Control parameters	
Occupational exposure limits	
None.	
Recommended monitoring procedures	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 appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
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.
Individual protection measure	<u>3</u>
Hygiene measures	<ul> <li>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.</li> <li>Appropriate techniques should be used to remove potentially contaminated clothing.</li> <li>Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.</li> </ul>
Eye 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 side-shields.
Skin protection	
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
	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: neoprene, nitrile rubber
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.

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### Section 8. Exposure controls/personal protection

Other skin protection	<ul> <li>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.</li> </ul>
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.

# Section 9. Physical and chemical properties

<u>Appearance</u>		
Physical state	iquid.	
Colour	Clear.	
Odour	Characteristic.	
Odour threshold	lot available.	
рН	lot applicable.	
Melting point	lot applicable.	
Boiling point	owest known value: 165 to 172°C (329 to 341.6°F)(propanoic acid, 3-etho ester). Weighted average: 171.11°C (340°F)	oxy-, ethyl
Flash point	Closed cup: 47°C (116.6°F)	
Burning time	lot applicable.	
Burning rate	lot applicable.	
Evaporation rate	0.12 (propanoic acid, 3-ethoxy-, ethyl ester) compared with butyl acetate	
Flammability (solid, gas)	lot applicable.	
Lower and upper explosive (flammable) limits	.05 - 9.8%	
Vapour pressure	lighest known value: 0.2 kPa (1.7 mm Hg) (at 20°C) (propanoic acid, 3-etl thyl ester).	hoxy-,
Vapour density	lot available.	
Relative density	0.902 g/cm <sup>3</sup>	
Solubility	nsoluble in the following materials: cold water and hot water.	
Partition coefficient: n- octanol/water	lot available.	
Auto-ignition temperature	owest known value: 280 to 470°C (536 to 878°F) (hydrocarbons, C9, aror	natic).
Decomposition temperature	lot available.	
SADT	lot available.	
Viscosity	Kinematic (40°C): >0.205 cm²/s (>20.5 mm²/s)	

# Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
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	: 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.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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Fine dust clouds may form explosive mixtures with air.

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### Section 11. Toxicological information

#### Information on toxicological effects

#### Acute toxicity

Not available.

#### Irritation/Corrosion

Not available.

#### **Sensitisation**

Not available.

#### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

#### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

Not available.

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

Name		Route of exposure	Target organs
hydrocarbons, C9, aromatic	Category 3		Respiratory tract irritation and Narcotic effects

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

Not available.

#### Aspiration hazard

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

Information on likely routes of exposure	: Not available.
Potential acute health effects	
Eye contact	: No known significant effects or critical hazards.
Inhalation	: May cause drowsiness or dizziness. May cause respiratory irritation.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Symptoms related to the phy Eye contact	sical, chemical and toxicological characteristics : No specific data.
Symptoms related to the phy	<ul> <li>sical, chemical and toxicological characteristics</li> <li>No specific data.</li> <li>Adverse symptoms may include the following: respiratory tract irritation</li> </ul>
	coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: No specific data.
Ingestion	: No specific data.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

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# Section 11. Toxicological information

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 effe	<u>cts</u>
Not available.	
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.

#### Numerical measures of toxicity

Acute toxicity estimates

Not available.

# Section 12. Ecological information

#### **Toxicity**

Product/ingredient name	Result	Species	Exposure
	Acute EC50 <10 mg/l	Daphnia	48 hours
	Acute IC50 <10 mg/l	Algae	72 hours
	Acute LC50 <10 mg/l	Fish	96 hours

#### Persistence/degradability

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

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
hydrocarbons, C9, aromatic	-	10 to 2500	high

<u>Mobility in soil</u> Soil/water partition coefficient (K <sub>oc</sub> )	: Not available.
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. 2 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 nonrecyclable 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. 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

**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.

	UN	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263
UN proper shipping name	Paint related material	Paint related material. Marine pollutant (hydrocarbons, C9, aromatic)	Paint related material
Transport hazard class(es)	3		3
Packing group	III	111	111
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.
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 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 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	-	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. <u>Emergency schedules</u> F-E, <u>S-E</u>	The environmentally hazardous substance mark may appear if required by other transportation regulations.
Marking :	The environmental hazardous / marine pollutant mark is only applicable for packages containing more than 5 litres for liquids and 5 kg for solids.		
ADR / RID :	Tunnel restriction code: (D/E) Hazard identification number: 30	C C C C C C C C C C C C C C C C C C C	

### Section 15. Regulatory information

Safety, health and environmental regulations specific for the product:

#### Law of the People's Republic of China on the Prevention and Control of Occupational Diseases

Regulations on the Control over Safety of Dangerous Chemicals

Measures for Environmental Management of New Chemical Substances

Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes Safety regulations for the use of chemicals in the workplace

General Rule for Classification and Hazard Communication of Chemicals

Classification and code of dangerous goods

#### List of Goods banned for Importing

None of the components are listed.

#### List of Goods banned for Exporting

None of the components are listed.

#### List of Toxic Chemicals Severely Restricted for Importing & Exporting by China

None of the components are listed.

### Section 16. Other information

<u>History</u>	
Date of printing	: 27.12.2019
Key to abbreviations	<ul> <li>ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway</li> <li>ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road</li> <li>ATE = Acute Toxicity Estimate</li> <li>BCF = Bioconcentration Factor</li> <li>GHS = Globally Harmonized System of Classification and Labelling of Chemicals</li> <li>IATA = International Air Transport Association</li> <li>IBC = Intermediate Bulk Container</li> <li>IMDG = International Maritime Dangerous Goods</li> <li>LogPow = logarithm of the octanol/water partition coefficient</li> <li>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)</li> <li>RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail</li> <li>UN = United Nations</li> </ul>

#### 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.