SAFETY DATA SHEET

JOTUN
Jotun Protects Property

SteelMaster 1200HPE Comp A

Section 1. Identification

UN number : UN3082

GHS product identifier : SteelMaster 1200HPE Comp A

Product code : 43902

Other means of identification : Not available.

Product type : Liquid.

Product description : Paint.

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

Not applicable.

Supplier's details :

Jotun Paints (Vietnam) Co. Ltd.
No., 1 Street 10,
Song Than 1 Industrial Zone,
Di An City,
Binh Duong Province,
Vietnam

Phone: + 84 274 374 2206
Fax: + 84 274 374 2205

SDSJotun@jotun.com

Jotun Paints Viet Nam
Hiep Phuoc Factory
Ho Chi Minh City
Lot F3, Street 01,
Hiep Phuoc Industrial Zone,
Hiep Phuoc Commune,
Nha Be District,
Ho Chi Minh, Viet Nam

Emergency telephone number (with hours of operation) : Office phone + 84 274 374 2206
or + 47 33 45 70 00 Jotun Norway (head office)

Section 2. Hazards identification

Classification of the substance or mixture :

SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITISATION - Category 1
CARCINOGENICITY - Category 2
REPRODUCTIVE TOXICITY - Category 2
AQUATIC TOXICITY (ACUTE) - Category 2
AQUATIC TOXICITY (CHRONIC) - Category 2

GHS label elements

Hazard pictograms :



Signal word : Warning.

Section 2. Hazards identification

Hazard statements : H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H351 - Suspected of causing cancer.
H361 - Suspected of damaging fertility or the unborn child.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P273 - Avoid release to the environment.
P261 - Avoid breathing vapour.

Response : P391 - Collect spillage.
P308 + P313 - IF exposed or concerned: Get medical advice or attention.
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 result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

Ingredient name	%	CAS number
epoxy resin (MW ≤ 700)	≥25 - ≤50	1675-54-3
Phenol, isobutylenated, phosphate (3:1)	≤10	68937-40-6
melamine	<10	108-78-1
triphenyl phosphate	≤5	115-86-6
trimethylolpropane triacrylate	≤3	15625-89-5
Oxirane, 2-(chloromethyl)-, polymer with α-hydro-ω-hydroxypoly[oxy (methyl-1,2-ethanediyl)]	≤3	9072-62-2
carbon	≤1	7440-44-0
Distillates (petroleum), hydrotreated light	≤1	64742-47-8
1,3,5-triazine-2,4,6(1H,3H,5H)-trione, compound with 1,3,5-triazine-2,4,6-triamine (1:1)	<1	37640-57-6
2-methoxy-1-methylethyl acetate	≤0.3	108-65-6
iron oxide (fe3o4)	≤0.3	1317-61-9

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 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 unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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 : 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/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
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 medical 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.

Section 4. First aid measures

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
nitrogen oxides
phosphorus oxides
halogenated compounds
carbonyl halides
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

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. 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 containment 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.

Section 6. Accidental release measures

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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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 ingest. Avoid breathing vapour or mist. Avoid release to the environment. 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 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. 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
triphenyl phosphate	**Schedule I USECHH 2000 (Malaysia, 4/2000).** TWA: 3 mg/m³ 8 hours.
carbon	**Ministry of Health (Vietnam, 6/2019). [bụi graphit]** TWA: 1 mg/m³ 8 hours. Form: Respirable dust TWA: 2 mg/m³ 8 hours. Form: Total dust
Distillates (petroleum), hydrotreated light	**ACGIH TLV (United States, 1/2023). [Kerosene as total hydrocarbon vapor] Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
2-methoxy-1-methylethyl acetate	**EU OEL (Europe, 1/2022). Absorbed through skin. Notes:** STEL: 550 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 275 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
iron oxide (fe3o4)	**Ministry of Health (Vietnam, 6/2019). [bụi**

Section 8. Exposure controls/personal protection

	oxit sắt] TWA: 2 mg/m³ 8 hours. Form: Respirable dust TWA: 4 mg/m³ 8 hours. Form: Total dust

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.

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 measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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: chemical splash goggles.

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 EN 374.
Recommended, gloves(breakthrough time) > 8 hours: 4H/Silver Shield® (> 0.07 mm), nitrile rubber (> 0.75 mm), neoprene (> 0.35 mm), butyl rubber (> 0.4 mm), fluor rubber (> 0.35 mm), Viton® (> 0.7 mm)

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 : 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 8. Exposure controls/personal protection

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

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Black

Odour : Characteristic.

Odour threshold : Not applicable.

pH : Not applicable.

Melting point : Not applicable.

Boiling point : Lowest known value: >260°C (>500°F)(epoxy resin (MW ≤ 700)). Weighted average: 324.05°C (615.3°F)

Flash point : Not available.

Evaporation rate : Not available.

Flammability (solid, gas) : Not applicable.

Lower and upper explosive (flammable) limits : Not applicable.

Vapour pressure : Highest known value: 0.0001 kPa (0.0008 mm Hg) (at 20°C) (trimethylolpropane triacrylate). Weighted average: 7e-006 kPa (5e-005 mm Hg) (at 20°C)

Vapour density : Highest known value: 11.7 (Air = 1) (epoxy resin (MW ≤ 700)).

Relative density : 1.469 g/cm³

Solubility : cold water Not soluble
hot water Not soluble

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Viscosity : Not available.

Flow time (ISO 2431) : Not available.

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 : No specific data.

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.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	20 g/kg	-
	LD50 Oral	Mouse	15600 mg/kg	-
Phenol, isobutylenated, phosphate (3:1)	LC50 Inhalation Vapour	Rat - Male	>0.4 mg/l	6 hours
	LD50 Oral	Rat	>5 g/kg	-
melamine	LD50 Oral	Rat	3161 mg/kg	-
triphenyl phosphate	LD50 Dermal	Rabbit	>7900 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
2,2-bis(acryloyloxymethyl) butyl acrylate	LD50 Dermal	Rabbit	5170 mg/kg	-
	LD50 Dermal	Rabbit	5170 mg/kg	-
1,3,5-triazine-2,4,6(1H,3H,5H)-trione, compound with 1,3,5-triazine-2,4,6-triamine (1:1)	LD50 Dermal	Rat	5520 mg/kg	-
	LD50 Oral	Rat	2500 mg/kg	-
2-methoxy-1-methylethyl acetate	LCLo Inhalation Vapour	Rat	23.5 mg/l	6 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
epoxy resin (MW ≤ 700)	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
Phenol, isobutylenated, phosphate (3:1)	Skin - Mild irritant	Rabbit	-	500 mg	-
melamine	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
2,2-bis(acryloyloxymethyl) butyl acrylate	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Oxirane, 2-(chloromethyl)-, polymer with α-hydro-ω-hydroxypoly[oxy(methyl-1,2-ethanediyl)]	Eyes - Mild irritant	Rabbit	-	24 hours 100 µl	-
1,3,5-triazine-2,4,6(1H,3H,5H)-trione, compound with 1,3,5-triazine-2,4,6-triamine (1:1)	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
epoxy resin (MW ≤ 700)	skin	Mammal - species unspecified	Sensitising
Phenol, isobutylenated, phosphate (3:1)	skin	Human	Not sensitizing
	skin	Mouse	Sensitising
2,2-bis(acryloyloxymethyl) butyl acrylate	skin	Mammal - species unspecified	Sensitising
Oxirane, 2-(chloromethyl)-, polymer with α-hydro-ω-hydroxypoly[oxy(methyl-1,2-ethanediyl)]	skin	Mammal - species unspecified	Sensitising

Section 11. Toxicological information

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Phenol, isobutylenated, phosphate (3:1)	OECD 471 OECD 476 OECD 479	Experiment: In vitro Subject: Bacteria Experiment: In vitro Subject: Mammalian-Animal Experiment: In vitro Subject: Mammalian-Animal	Negative Negative Negative

Carcinogenicity

Not available.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
Phenol, isobutylenated, phosphate (3:1)	Negative	-	Negative	Rat	Parenteral: 1000 mg/kg	-
melamine	-	Positive	-	Rat - Male	Oral: 89 mg/kg	days

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
2-methoxy-1-methylethyl acetate	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
melamine 1,3,5-triazine-2,4,6(1H,3H,5H)-trione, compound with 1,3,5-triazine-2,4,6-triamine (1:1)	Category 2 Category 2	- -	urinary tract -

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated light	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

Potential acute health effects

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.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

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:
irritation
redness
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 effects as 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 effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : 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)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
trimethylolpropane triacrylate 1,3,5-triazine-2,4,6(1H,3H,5H)-trione, compound with 1,3,5-triazine-2,4,6-triamine (1:1)	N/A 2500	5170 5520	N/A N/A	N/A N/A	N/A N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
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
Phenol, isobutylenated, phosphate (3:1)	LC10 0.05 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3 mg/l Fresh water	Algae - Selenastrum capricornutum	96 hours
	Acute EC50 0.202 mg/l Fresh water	Daphnia - Daphina magna	48 hours
	Acute LC50 >1 mg/l Marine water	Crustaceans - Mysidopsis bahia	96 hours
	Acute LC50 0.8 mg/l Fresh water	Fish - Ictalurus punctatus	96 hours
	Chronic NOEC 0.0399 mg/l Fresh water	Daphnia - Daphina magna	21 days
	Chronic NOEC 0.093 mg/l Fresh water	Fish - Pimephales promales	90 days

Section 12. Ecological information

triphenyl phosphate	Chronic NOEC 0.194 mg/l Fresh water Acute EC50 2 mg/l Acute EC50 1 mg/l Acute EC50 225 µg/l Fresh water Acute LC50 0.4 mg/l Chronic NOEC 55 µg/l Fresh water	Fish - Pimephales promelas Algae Daphnia Fish - Oncorhynchus mykiss - Fingerling Fish Fish - Oncorhynchus mykiss - Fingerling	90 days 96 hours 48 hours 96 hours 96 hours 30 days

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Phenol, isobutylenated, phosphate (3:1)	OECD 301D	61 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
epoxy resin (MW ≤ 700)	-	-	Not readily
Phenol, isobutylenated, phosphate (3:1)	Fresh water 1 days, 24°C	-	Readily
triphenyl phosphate	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
epoxy resin (MW ≤ 700)	2.64 to 3.78	31	low
Phenol, isobutylenated, phosphate (3:1)	4.85	1850	high
melamine	-1.22	<3.8	low
triphenyl phosphate	4.63	144	low
2,2-bis(acryloyloxymethyl) butyl acrylate	0.67	-	low
1,3,5-triazine-2,4,6(1H,3H,5H)-trione, compound with 1,3,5-triazine-2,4,6-triamine (1:1)	-2.28	-	low
2-methoxy-1-methylethyl acetate	1.2	-	low

Mobility in soil

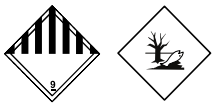
Soil/water partition coefficient (K_{OC}) : Not available.

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. 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	IATA
UN number	UN3082	UN3082	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Phenol, isobutylenated, phosphate (3:1), epoxy resin (MW ≤ 700))	Environmentally hazardous substance, liquid, n.o.s. (Phenol, isobutylenated, phosphate (3:1), epoxy resin (MW ≤ 700)). Marine pollutant (epoxy resin (MW ≤ 700), Phenol, isobutylenated, phosphate (3:1))	Environmentally hazardous substance, liquid, n.o.s. (Phenol, isobutylenated, phosphate (3:1), epoxy resin (MW ≤ 700))
Transport hazard class(es)	9 	9 	9 
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.

Additional information

ADR/RID : 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.
Hazard identification number 90
Tunnel code (-)

ADN : 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.

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 F-A, S-F

IATA : 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 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

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 to IMO instruments : Not available.

Section 15. Regulatory information

Toxic classification (TCVN 3164-79) : 4

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.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Section 15. Regulatory information

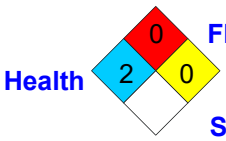
UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

Ratings of danger according to

NFPA



HMIS

Health	*	2
Flammability		0
Physical hazards		0

History

Date of printing : 19.12.2025

Date of issue/Date of revision : 19.12.2025

Date of previous issue : 19.12.2025

Version : 1.05

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HMIS = Hazardous Material Information System (U.S.A.)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
NFPA = National Fire Protection Association (U.S.A.)
SGG = Segregation Group
UN = United Nations

Procedure used to derive the classification

Classification	Justification
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITISATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
REPRODUCTIVE TOXICITY - Category 2	Calculation method
AQUATIC TOXICITY (ACUTE) - Category 2	Calculation method
AQUATIC TOXICITY (CHRONIC) - Category 2	Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

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.

SAFETY DATA SHEET

JOTUN
Jotun Protects Property

SteelMaster 1200HPE Comp B

Section 1. Identification

UN number : UN3066

GHS product identifier : SteelMaster 1200HPE Comp B

Product code : 43903

Other means of identification : Not available.

Product type : Liquid.

Product description : Hardener.

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

Not applicable.

Supplier's details :

Jotun Paints (Vietnam) Co. Ltd.
No., 1 Street 10,
Song Than 1 Industrial Zone,
Di An City,
Binh Duong Province,
Vietnam

Phone: + 84 274 374 2206
Fax: + 84 274 374 2205

SDSJotun@jotun.com

Jotun Paints Viet Nam
Hiep Phuoc Factory
Ho Chi Minh City
Lot F3, Street 01,
Hiep Phuoc Industrial Zone,
Hiep Phuoc Commune,
Nha Be District,
Ho Chi Minh, Viet Nam

Emergency telephone number (with hours of operation) : Office phone + 84 274 374 2206
or + 47 33 45 70 00 Jotun Norway (head office)

Section 2. Hazards identification

Classification of the substance or mixture :

ACUTE TOXICITY (oral) - Category 5
SKIN CORROSION - Category 1C
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITISATION - Category 1
CARCINOGENICITY - Category 2
REPRODUCTIVE TOXICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
AQUATIC TOXICITY (ACUTE) - Category 1
AQUATIC TOXICITY (CHRONIC) - Category 2

GHS label elements

Hazard pictograms :



Signal word : Danger.

Section 2. Hazards identification

Hazard statements : H303 - May be harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
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)
H400 - Very toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P273 - Avoid release to the environment.
P260 - Do not breathe vapour.

Response : P391 - Collect spillage.
P308 + P313 - IF exposed or concerned: Get medical advice or attention.
P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor.
P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor.
P363 - Wash contaminated clothing 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, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

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 result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

Ingredient name	%	CAS number
melamine	≥10 - ≤25	108-78-1
Carbomonocyclic alkylated mixtures of poly-aza-alkanes, hydrogenated	≥10 - ≤17	1173092-74-4
Fatty acids C18 unsat, reaction products with tetraethylenepentamine	≥10 - ≤23	1226892-45-0
2,4,6-tris(dimethylaminomethyl)phenol	≤6.7	90-72-2
3-aminopropyldiethylamine	≤1	104-78-9
benzenedimethanamine, n-(2-phenylethyl) derivs.	<1	404362-22-7

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 : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. 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. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a 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/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes severe burns. May cause an allergic skin reaction.

Ingestion : May be harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced foetal weight
increase in foetal deaths
skeletal malformations

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

Section 4. First aid measures

Indication of immediate medical 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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

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 very toxic to aquatic life. 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
nitrogen 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

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. Do not breathe 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 containment 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.

Section 6. Accidental release measures

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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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. Avoid release to the environment. 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 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. 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

None.

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.

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 measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

Eye/face 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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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 ISO 374-1:2016.
Recommended, gloves(breakthrough time) > 8 hours: PVC (> 0.5 mm), nitrile rubber (> 0.75 mm), neoprene (> 0.35 mm), butyl rubber (> 0.4 mm)

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 : 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.

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

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Colour : White.

Odour : Characteristic.

Odour threshold : Not applicable.

pH : Not applicable.

Melting point : Not applicable.

Boiling point : Lowest known value: 170°C (338°F) (3-aminopropyldiethylamine). Weighted average: 318.42°C (605.2°F)

Flash point : Not available.

Evaporation rate : Not available.

Section 9. Physical and chemical properties

Flammability (solid, gas) : Not applicable.

Lower and upper explosive (flammable) limits : Not applicable.

Vapour pressure : Highest known value: 0.2 kPa (1.5 mm Hg) (at 20°C) (3-aminopropyldiethylamine). Weighted average: 0.01 kPa (0.08 mm Hg) (at 20°C)

Vapour density : Highest known value: 4.48 (Air = 1) (3-aminopropyldiethylamine).

Relative density : 1.47 g/cm³

Solubility : cold water Not soluble
hot water Not soluble

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Viscosity : Not available.

Flow time (ISO 2431) : Not available.

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 : No specific data.

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.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
melamine	LD50 Oral	Rat	3161 mg/kg	-
2,4,6-tris (dimethylaminomethyl) phenol	LD50 Oral	Rat	500 mg/kg	-
3-aminopropyldiethylamine	LD50 Oral	Rat	550 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
melamine	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
2,4,6-tris (dimethylaminomethyl) phenol	Eyes - Severe irritant	Rabbit	-	24 hours 50 µg	-
	Skin - Severe irritant	Rat	-	0.25 ml	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
Carbomonocyclic alkylated mixtures of poly-aza-alkanes, hydrogenated	skin	Mammal - species unspecified	Sensitising
benzenedimethanamine, n-(2-phenylethyl) derivs.	skin	Mammal - species unspecified	Sensitising

Mutagenicity

Section 11. Toxicological information

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

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

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
melamine	Category 2	-	urinary tract
benzenedimethanamine, n-(2-phenylethyl) derivs.	Category 2	-	heart

Aspiration hazard

Not available.

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes severe burns. May cause an allergic skin reaction.

Ingestion : May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced foetal weight
increase in foetal deaths
skeletal malformations

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

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

Short term exposure

Section 11. Toxicological information

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 effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : 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)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
SteelMaster 1200HPE Comp B	2132.5	106848.8	N/A	N/A	N/A
Carbomonocyclic alkylated mixtures of poly-aza-alkanes, hydrogenated	500	N/A	N/A	N/A	N/A
2,4,6-tris(dimethylaminomethyl)phenol	500	N/A	N/A	N/A	N/A
3-aminopropyldiethylamine	550	1100	N/A	N/A	N/A
benzenedimethanamine, n-(2-phenylethyl) derivs.	1000	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
melamine	-1.22	<3.8	low
Fatty acids C18 unsat, reaction products with tetraethylenepentamine	2.2	-	low
2,4,6-tris (dimethylaminomethyl)phenol	0.219	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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. 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	IATA
UN number	UN3066	UN3066	UN3066
UN proper shipping name	Paint related material	Paint related material. Marine pollutant (Fatty acids C18 unsat, reaction products with tetraethylenepentamine)	Paint related material
Transport hazard class(es)	8 	8 	8 
Packing group	III	III	III
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

ADR/RID : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Hazard identification number 80
Tunnel code (E)

ADN : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Emergency schedules F-A, S-B
Segregation Group: 18 - Alkalis

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

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 to IMO instruments : Not available.

Section 15. Regulatory information

Toxic classification (TCVN 3164-79) : 3

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Section 15. Regulatory information

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

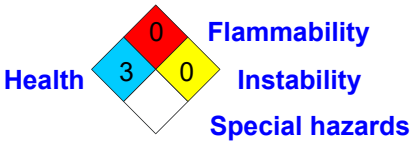
UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

Ratings of danger according to

NFPA



HMIS

Health	*	3
Flammability		0
Physical hazards		0

History

Date of printing : 10.07.2025

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Version : 1.04

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HMIS = Hazardous Material Information System (U.S.A.)
IATA = International Air Transport Association
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N/A = Not available
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Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (oral) - Category 5	Calculation method
SKIN CORROSION - Category 1C	Calculation method
SERIOUS EYE DAMAGE - Category 1	Calculation method
SKIN SENSITISATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
REPRODUCTIVE TOXICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2	Calculation method
AQUATIC TOXICITY (ACUTE) - Category 1	Calculation method
AQUATIC TOXICITY (CHRONIC) - Category 2	Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

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.