

Hardtop Design Metallics Comp A

Section 1. Identification

Product name	: Hardtop Design Metallics Comp A
Product code	: 43962
Product description	: Paint.
Product type	: Liquid.
Other means of identification	: Not available.
Supplier's details	: Jotun Paints Co LLC, P.O.Box 672-C.P.O, Postal Code - 111 Sultanate of Oman Tel: 00968-626100 Fax:00968-626105 SDSJotun@jotun.com
Emergency telephone number	: Jotun AS, Norway +47 33 45 70 00

Section 2. Hazards identification

Classification of the substance or mixture	 FLAMMABLE LIQUIDS - Category 3 SKIN SENSITISATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
GHS label elements Hazard pictograms	
Signal word	: Warning.
Hazard statements	 H226 - Flammable liquid and vapour. H317 - May cause an allergic skin reaction. H336 - May cause drowsiness or dizziness. H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements	
Prevention	 P280 - Wear protective gloves. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment. P261 - Avoid breathing vapour.
Response	 P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. 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.
Storage	: P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
Date of issue/Date of revision	: 04.07.2022 Date of previous issue : 12.04.2021 Version : 1.02 1/11

Section 2. Hazards identification

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	: Not available.
identification	

CAS number/other identifiers

CAS number	: Not applicable.
EC number	: Mixture.
Product code	: 43962

Ingredient name % CAS number	
n-butyl acetate ≥25 - ≤50 123-86-4	
2-butoxyethyl acetate ≤3 112-07-2	
pentane-2,4-dione ≤3 123-54-6	
benzotriazol derivate ≤2.6 104810-48-2	
decanedioic acid, 1,10-bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester, mixt. ≤1 1065336-91-5 with 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidinyl) decanedioate	

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 f	irst 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 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. 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. 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

Section 4. First aid measures

as a collar, tie, belt or waistband.

Most important symptoms/e	cute and delayed	
Potential acute health effect		
Eye contact	known significant effects or critical hazards.	
Inhalation	cause drowsiness or dizziness.	
Skin contact	cause an allergic skin reaction.	
Ingestion	nown significant effects or critical hazards.	
Over-exposure signs/symp		
Eye contact	specific data.	
Inhalation	erse symptoms may include the following: sea or vomiting dache vsiness/fatigue iness/vertigo onsciousness	
Skin contact	erse symptoms may include the following: ition ness	
Ingestion	specific data.	
Indication of immediate med	ntion and special treatment needed, if necessary	
Notes to physician	ase of inhalation of decomposition products in a fire, sy exposed person may need to be kept under medical s	
Specific treatments	specific treatment.	
Protection of first-aiders	action shall be taken involving any personal risk or with uspected that fumes are still present, the rescuer shoul ik or self-contained breathing apparatus. It may be dar riding aid to give mouth-to-mouth resuscitation. Wash oughly with water before removing it, or wear gloves.	d wear an appropriate ngerous to the person

See toxicological information (Section 11)

Section 5. Firefighting measures Extinguishing media Suitable extinguishing : Use dry chemical, CO₂, water spray (fog) or foam. media Unsuitable extinguishing : Do not use water jet. media Specific hazards arising : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. from the chemical 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 harmful 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 may include the following materials: ŝ, decomposition products carbon dioxide carbon monoxide nitrogen oxides halogenated compounds

carbonyl halides metal oxide/oxides

Section 5. Firefighting measures

	-
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.
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, protect	tiv	e 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.
Methods and material for con	ta	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

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

```
    Protective measures
    Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
```

Section 7. Handling and storage

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 a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and we ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising 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

Ingredient name	Exposure limits	
n-butyl acetate	ACGIH TLV (United States, 1/2021). STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.	
2-butoxyethyl acetate	ACGIH TLV (United States, 1/2021).	
pentane-2,4-dione	TWA: 20 ppm 8 hours. ACGIH TLV (United States, 1/2021). Absorbed through skin.	
	TWA: 25 ppm 8 hours.	

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>es</u>	
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: safety glasses with side-shields.
Skin protection		
Hand protection	;	

Section 8. Exposure controls/personal 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/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.
Not recommended, gloves(breakthrough time) < 1 hour: Viton®, PE Recommended, gloves(breakthrough time) > 8 hours: polyvinyl alcohol (PVA), Teflon May be used, gloves(breakthrough time) 4 - 8 hours: 4H, nitrile rubber, neoprene, PVC, butyl rubber
: 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.
 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.
: 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

<u>Appearance</u>	
Physical state	: Liquid.
Colour	: Metallic
Odour	: Characteristic.
Odour threshold	: Not applicable.
рН	: Not applicable.
Melting point	: Not applicable.
Boiling point	 Lowest known value: 126°C (258.8°F) (n-butyl acetate). Weighted average: 131.51°C (268.7°F)
Flash point	: Closed cup: 27°C (80.6°F)
Evaporation rate	: Highest known value: 1 (n-butyl acetate) Weighted average: 0.92compared with butyl acetate
Flammability (solid, gas)	: Not applicable.
Lower and upper explosive (flammable) limits	: 1.3 - 11.6%
Vapour pressure	: Highest known value: 1.5 kPa (11.3 mm Hg) (at 20°C) (n-butyl acetate). Weighted average: 1.37 kPa (10.28 mm Hg) (at 20°C)
Vapour density	 Highest known value: 5.5 (Air = 1) (2-butoxyethyl acetate). Weighted average: 4.09 (Air = 1)
Density	: 1.06 to 1.081 g/cm ³
Solubility	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n- octanol/water	: Not available.
Date of issue/Date of revision	: 04.07.2022 Date of previous issue : 12.04.2021 Version : 1.02 6/1

Section 9. Physical and chemical properties

Auto-ignition temperature	:	Lowest known value: 340°C (644°F) (2-butoxyethyl acetate).
Decomposition temperature	1	Not available.
Viscosity	1	Kinematic (40°C): >20.5 mm²/s (>20.5 cSt)

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		Reactive or incompatible with the following materials: oxidising materials
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
n-butyl acetate	LC50 Inhalation Vapour	Rat	>21.1 mg/l	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	13100 mg/kg	-
2-butoxyethyl acetate	LD50 Dermal	Rabbit	1500 mg/kg	-
pentane-2,4-dione	LD50 Oral	Mouse	951 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-butoxyethyl acetate	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
pentane-2,4-dione	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	488 milligrams	-
	Skin - Mild irritant	Rabbit	-	6 hours 11.2 Mililiters Intermittent	-
	Skin - Moderate irritant	Rabbit	-	48 hours 11.2 Mililiters Intermittent	-
	Skin - Moderate irritant	Rabbit	-	6 hours 33.6 Mililiters Intermittent	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
benzotriazol derivate	skin	Mammal - species unspecified	Sensitising

Mutagenicity

Not available.

Carcinogenicity

Not available.

Section 11. Toxicological information

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name		Route of exposure	Target organs
n-butyl acetate	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes : Not available. of exposure

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	: May cause drowsiness or dizziness.
Skin contact	: 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	: No specific data.
Inhalation	: Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.

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

<u>Short term exposure</u>		
Potential immediate effects	1	Not available.
Potential delayed effects	:	Not available.
Long term exposure		
Potential immediate effects	1	Not available.
Potential delayed effects	:	Not available.
Potential chronic health eff	iect	<u>s</u>
Not available.		
General	:	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Date of issue/Date of revision		: 04.07.2022 Date of previous issue : 12.04.2021 Version : 1.02 8/11

Section 11. Toxicological information

Teratogenicity Developmental effects

- : No known significant effects or critical hazards.
- s : No known significant effects or critical hazards.
- Fertility effects
- : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	41459.37 mg/kg
Dermal	17158.54 mg/kg
Inhalation (vapours)	154.19 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
pentane-2,4-dione	Acute EC50 75000 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata - Larvae	48 hours
	Acute LC50 47600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 60100 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
decanedioic acid, 1,10-bis (1,2,2,6,6-pentamethyl- 4-piperidinyl) ester, mixt. with 1-methyl 10- (1,2,2,6,6-pentamethyl- 4-piperidinyl) decanedioate	Acute EC50 1.68 mg/l	Algae	96 hours
	Acute LC50 0.9 mg/l Chronic NOEC 1 mg/l	Fish Daphnia	96 hours 21 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
benzotriazol derivate	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
n-butyl acetate	2.3	-	low
2-butoxyethyl acetate	1.51	-	low
pentane-2,4-dione	0.68	-	low

<u>Mobility in soil</u>	
Soil/water partition	
coefficient (Koc)	

: 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 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

	-		
	ADR/RID	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263
UN proper shipping name	Paint	Paint	Paint
Transport hazard class(es)	3	3	3
Packing group	111		Ш
Environmental hazards	No.	No.	No.
Additional information	-	Emergency schedules F-E, S-E	-

Additional information		
ADR/RID	:	ADR/RID: Viscous substance. Not restricted, ref. chapter 2.2.3.1.5 (applicable to receptacles < 450 litre capacity).
		Hazard identification number 30 Tunnel code (D/E)
IMDG	:	IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to receptacles < 450 litre capacity).
		Emergency schedules F-E, <u>S-E</u>
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

Safety, health and environmental regulations specific for the product

: No known specific national and/or regional regulations applicable to this product (including its ingredients).

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

<u>History</u>	
Date of printing	: 04.07.2022
Date of issue/Date of revision	: 04.07.2022
Date of previous issue	: 12.04.2021
Version	: 1.02
Key to abbreviations	 ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	: Not available.

V 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.