



## **Jotacote Universal N90 Comp B**

SDS Number: AA00319-0000000391

In accordance with the Standard for Classification and Labeling of Chemical Substance and Safety Data Sheet,
Article 10 Paragraph 1

## Section 1. Chemical product and company identification

A. Product name : Jotacote Universal N90 Comp B

Product code : 42282
Product description : Hardener.

### B. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** 

Use in coatings - Consumer use: Apply this product only as specified on the label.

Use in coatings - Industrial use

C. Manufacturer : Chokwang Jotun Ltd.

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South Korea

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**Emergency telephone** 

number

: H.G.LEE Chokwang Jotun Ltd.

Tel: +82 51 797 6000

## Section 2. Hazards identification

A. Hazard classification : FLAMMABLE LIQUIDS - Category 4

ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SKIN SENSITISATION - Category 1

SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.

B. GHS label elements, including precautionary statements

Symbol :







Signal word : Danger.

**Hazard statements** : H227 - Combustible liquid.

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H400 - Very toxic to aquatic life.

H411 - Toxic to aquatic life with long lasting effects.

**Precautionary statements** 

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## Section 2. Hazards identification

: P103 - Read label before use. **General** 

P102 - Keep out of reach of children.

P101 - If medical advice is needed, have product container or label at hand.

**Prevention** : P280 - Wear protective gloves, protective clothing and eye or face protection.

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.

P270 - Do not eat, drink or smoke when using this product.

P264 - Wash hands thoroughly after handling.

Response : P391 - Collect spillage.

> P304 + P340, P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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** : P405 - Store locked up.

: P501 - Dispose of contents and container in accordance with all local, regional, **Disposal** 

national and international regulations.

C.

Other hazards which do : None known.

not result in classification

# Section 3. Composition/information on ingredients

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

Ingredient name	Common name	Identifiers	%
Carbomonocyclic alkylated mixtures of polyaza-alkanes, hydrogenated	Carbomonocyclic alkylated mixtures of poly-aza-alkanes, hydrogenated	CAS: 1173092-74-4	≥75 - ≤80
Formaldehyde, oligomeric reaction products with phenol	phenol-formaldehyde resin	CAS: 9003-35-4	≤10
2,6-ditert-butyl-p-cresol	2,6-di-tert-butyl-p-cresol	CAS: 128-37-0	≤10
3-aminopropyldiethylamine	3-aminopropyldiethylamine	CAS: 104-78-9	<5
n-butyl acetate	n-butyl acetate	CAS: 123-86-4	≤5
Formaldehyde polymer with 1,3-benzene dimethanamine and phenol and mixtures which contain 25% or more.	Formaldehyde, oligomeric reaction products with phenol and m-phenylenebis (methylamine)	CAS: 57214-10-5	≤3

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.

> : 29.11.2023 Date of revision

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# Section 3. Composition/information on ingredients

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

## Section 4. First aid measures

## A. 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.
- **B.** 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.

#### C. 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.

#### **D.** 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.

### E. 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

A. 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.

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## Section 5. Firefighting measures

- B. Specific hazards arising from the chemical
- : Combustible liquid. 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 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
- C. 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.

**Special precautions 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 6. Accidental release measures

- A. Personal precautions, protective equipment and emergency procedures
- : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- B. 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.
- C. Methods and material for containment 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

A. 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 breathe vapour or mist. Do not ingest. 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,

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# Section 7. Handling and storage

## Advice on general occupational hygiene

lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- B. 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 wellventilated 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

#### A. Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
n-butyl acetate	Ministry of Employment and Labor (Republic of Korea, 1/2020). STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours.

- controls
- B. Appropriate engineering: 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.

#### C. Personal protective equipment

**Respiratory 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.

## Eye protection **Hand protection**

- : Use safety eyewear designed to protect against splash of liquids.
- 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.

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# Section 8. Exposure controls/personal protection

Wear suitable gloves tested to ISO 374-1:2016.

Recommended, gloves(breakthrough time) > 8 hours: Teflon (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 mm)

May be used, gloves(breakthrough time) 4 - 8 hours: 4H/Silver Shield® (> 0.07 mm), butyl rubber (> 0.4 mm)

Not recommended, gloves(breakthrough time) < 1 hour: nitrile rubber (> 0.75 mm), neoprene (> 0.35 mm), PVC (> 0.5 mm), Viton® (> 0.7 mm)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

**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.

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 9. Physical and chemical properties

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

A. Appearance

**Physical state** : Liquid.

Colour : Yellowish-brown. B. Odour : Characteristic. C. Odour threshold : Not applicable. D. pH : Not applicable.

F. Boiling point, initial boiling point, and

E. Melting/freezing point

boiling range

: Lowest known value: 126°C (258.8°F) (n-butyl acetate). Weighted average:

152.76°C (307°F)

: Closed cup: 74°C G. Flash point

: 1 (n-butyl acetate) compared with butyl acetate H. Evaporation rate

: Not applicable.

Flammability (solid, gas) : Not applicable. J. Lower and upper : 1.4 - 7.6%

explosive (flammable)

K. Vapour pressure

limits

: Highest known value: 1.5 kPa (11.3 mm Hg) (at 20°C) (n-butyl acetate). Weighted

average: 0.71 kPa (5.33 mm Hg) (at 20°C)

: cold water Not soluble L. Solubility hot water Not soluble

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

average: 4.29 (Air = 1)

N. Relative density : 1.002 g/cm<sup>3</sup> O. Partition coefficient: n-: Not available.

octanol/water

P. Auto-ignition

: Lowest known value: 415°C (779°F) (n-butyl acetate).

temperature : Not available. Q. Decomposition

temperature

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# Section 9. Physical and chemical properties

: Kinematic (40°C (104°F)): >20.5 mm<sup>2</sup>/s (>20.5 cSt) R. Viscosity

: Not applicable. S. Molecular weight

**Particle characteristics** 

Median particle size : Not applicable.

## Section 10. Stability and reactivity

A. Chemical stability : The product is stable.

Possibility of hazardous

reactions

decomposition products

: Under normal conditions of storage and use, hazardous reactions will not occur.

B. 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.

C. Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions:

oxidising agents, strong alkalis, strong acids.

: Under normal conditions of storage and use, hazardous decomposition products D. Hazardous

should not be produced.

## Section 11. Toxicological information

There are no data available on the mixture itself. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Ingestion may cause nausea, diarrhea and vomiting.

A. Information on likely : Not available.

routes of exposure

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion : Harmful if swallowed.

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

Eye contact Causes serious eye damage.

Over-exposure signs/symptoms

Inhalation : No specific data.

Ingestion : Adverse symptoms may include the following:

stomach pains

**Skin contact** : Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Eye contact : Adverse symptoms may include the following:

> pain watering redness

B. Health hazards

**Acute toxicity** 

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# Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
3-aminopropyldiethylamine	LD50 Oral		550 mg/kg	-
n-butyl acetate	LC50 Inhalation Vapour		>21.1 mg/l	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	13100 mg/kg	-

## **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
2,6-ditert-butyl-p-cresol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Human	-	48 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	48 hours 500 milligrams	-

#### **Sensitisation**

Product/ingredient name	Route of exposure	Species	Result
Carbomonocyclic alkylated mixtures of poly-aza-alkanes, hydrogenated	skin	Mammal - species unspecified	Sensitising

## **CMR - ISHA Article 42 Occupational Exposure Limits**

Not available.

**Mutagenicity** 

**Conclusion/Summary**: No known significant effects or critical hazards.

**Carcinogenicity** 

**Conclusion/Summary**: No known significant effects or critical hazards.

**Classification** 

Product/ingredient name	OSHA	IARC	NTP	ACGIH
2,6-ditert-butyl-p-cresol	-	3	-	A4

## **Reproductive toxicity**

Not available.

### **Teratogenicity**

**Conclusion/Summary**: No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Product/ingredient name	3.5	Route of exposure	Target organs
n-butyl acetate	Category 3	-	Narcotic effects

## Specific target organ toxicity (repeated exposure)

Not available.

### **Aspiration hazard**

Not available.

## Potential chronic health effects

## **Chronic toxicity**

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

**Carcinogenicity**: No known significant effects or critical hazards.

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# Section 11. Toxicological information

Mutagenicity : No known significant effects or critical hazards.Reproductive toxicity : No known significant effects or critical hazards.

## **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)
Jotacote Universal N90 Comp B Carbomonocyclic alkylated mixtures of poly-aza- alkanes, hydrogenated 3-aminopropyldiethylamine n-butyl acetate	623.2	23630.5	N/A	N/A	N/A
	500	N/A	N/A	N/A	N/A
	550	1100	N/A	N/A	N/A
	13100	N/A	N/A	N/A	N/A

## Section 12. Ecological information

### A. Ecotoxicity

This material is very toxic to aquatic life. This material is toxic to aquatic life with long lasting effects.

Product/ingredient name	Result	Species	Exposure
Formaldehyde polymer with 1,3-benzene dimethanamine and phenol and mixtures which contain 25% or more.	Acute LC50 25.9 mg/l	Fish	96 hours

### B. Persistence and degradability

Not available.

#### C. Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2,6-ditert-butyl-p-cresol	5.1	330 to 1800	high
n-butyl acetate	2.3	-	low

### D. Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

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

# Section 13. Disposal considerations

## A. 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.

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# Section 13. Disposal considerations

## **B.** Disposal precautions

: 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

	UN	IMDG	IATA
A. UN number	UN3066	UN3066	UN3066
B. UN proper shipping name	Paint related material	Paint related material. Marine pollutant (2,6-ditert-butyl-p-cresol)	Paint related material
C. Transport hazard class(es)	8	8	8
D. Packing group	III	III	III
E. Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.

### **Additional information**

**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.

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)

F. Special precautions for user

: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according: Not available. to IMO instruments

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

# **Section 15. Regulatory information**

## A. Regulation according to ISHA

**ISHA** article 117 (Harmful substances prohibited from manufacture)

: None of the components are listed.

**ISHA article 118** (Harmful substances requiring permission)

: None of the components are listed.

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## Section 15. Regulatory information

**Article 2 of Youth** 

: Not applicable.

**Protection Act on Substances Hazardous** 

to Youth

### **Exposure Limits of Chemical Substances and Physical Factors**

The following components have an OEL:

n-butyl acetate

**ISHA Enforcement Regs** 

: None of the components are listed.

**Annex 19 (Exposure** standards established for harmful factors)

**ISHA Enforcement Regs** 

**Annex 21 (Harmful** factors subject to Work

**Environment** Measurement)

**ISHA Enforcement Regs**: None of the components are listed.

**Annex 22 (Harmful Factors Subject to Special Health Check-**

up)

Standard of Industrial **Safety and Health** 

**Annex 12 (Hazardous** substances subject to

control)

: The following components are listed: n-butyl acetate

: The following components are listed: n-butyl acetate

### B. Regulation according to Chemicals Control Act

**AREC Article 17 (TRI)** 

: The following components are listed: 2,6-Di-tert-butyl-4-hydroxytoluene

**AREC Article 32** 

(Banned)

: None of the components are listed.

**Article 19 Subject to** authorization (K-Reach

Article 25)

: None of the components are listed.

**AREC Toxic chemicals** : Not applicable

**AREC Article 32** 

(Restricted)

: None of the components are listed.

**CCA Article 39** (Accident Precaution

**Chemicals**)

: None of the components are listed.

**Existing Chemical Substances Subject to** Registration

: None of the components are listed.

C. Dangerous Materials **Safety Management Act**  : Class: Class 4 - Flammable Liquid

Item: 5. Class 3 petroleums - Water-insoluble liquid

Threshold: 2000 L Danger category: III

Signal word: Contact with sources of ignition prohibited

Dispose of contents and container in accordance with all local, regional, national D. Wastes regulation

and international regulations.

## E. Regulation according to other foreign laws

**International regulations** 

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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## 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

A. References : - Registry of Toxic Effects of Chemical Substances

- United States Environmental Protection Agency ECOTOX

Date of printing : 29.11.2023

D. Other

▼ Indicates information that has changed from previously issued version.

**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 = 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 SGG = Segregation Group UN = United Nations

## **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.