

Section 1. Identification of the hazardous chemical and of the supplier

Product identifier : JOTUN Multicolor Solvent-Free YC

Other means of : Not available.

identification

Product code : 52462

Product description : Colouring material. Waterborne paint.

Product type : Liquid.

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

Not applicable.

Manufacturer : Jotun Bangladesh Ltd

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Section 2. Hazards identification

Classification of the : HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD -

substance or mixture Category 2

GHS label elements

Hazard pictograms :



Signal word : No signal word.

Hazard statements : H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention: P273 - Avoid release to the environment.

Response : P391 - Collect spillage.

Storage : Not applicable.

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

national and international regulations.

Date of issue : 22.03.2023 1/11

Section 2. Hazards identification

Other hazards which do not : None known.

result in classification

Section 3. Composition and information of the ingredients of the hazardous chemical

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

identification

CAS number/other identifiers

CAS number : Not applicable.
EC number : Mixture.
Product code : 52462

Ingredient name	%	CAS number
trizinc bis(orthophosphate)	≤5	7779-90-0
bismuth vanadium oxide (bivo4)	≤5	14059-33-7
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18	≤5	147170-44-3
and C18-unsatd. acyl) derivs., inner salts		
3-iodo-2-propynyl butylcarbamate (IPBC)	≤0.3	55406-53-6
bronopol	≤0.1	52-51-7
2-octyl-2h-isothiazol-3-one (OIT)	≤0.1	26530-20-1
C(M)IT/MIT (3:1)	≤0.1	55965-84-9

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. Get medical attention if irritation

occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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 : Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur.

Ingestion: Wash out mouth with water. If material has been swallowed and the exposed

person is conscious, give small quantities of water to drink. Do not induce vomiting

unless directed to do so by medical personnel.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 Ingestion
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Date of issue : 22.03.2023

2/11

Section 4. First aid measures

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

: In case of inhalation of decomposition products in a fire, symptoms may be delayed. Notes to physician

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.

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 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. 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.

: 22.03.2023 Date of issue

3/11

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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. 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.

including any incompatibilities

Conditions for safe storage, : 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. 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		
3-iodo-2-propynyl butylcarbamate (IPBC)	DFG MAC-values list (Germany, 10/2021). Skin sensitiser. PEAK: 0.116 mg/m³, 4 times per shift, 15 minutes. PEAK: 0.01 ppm, 4 times per shift, 15 minutes. TWA: 0.058 mg/m³ 8 hours. TWA: 0.005 ppm 8 hours.		
bronopol 2-octyl-2h-isothiazol-3-one (OIT)	DFG MAC-values list (Germany, 10/2021). Absorbed through skin. Skin sensitiser. DFG MAC-values list (Germany, 10/2021). Absorbed through skin. Skin sensitiser. TWA: 0.05 mg/m³ 8 hours. Form: inhalable fraction PEAK: 0.1 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction		

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Date of issue : 22 03 2023

Section 8. Exposure controls/personal protection

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. 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 ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

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: nitrile rubber (> 0.4 mm), neoprene (> 0.35 mm), butyl rubber (> 0.4 mm), PVC (> 0.5 mm), fluor rubber (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 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

: 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.

Date of issue : 22.03.2023

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. Colour : Yellow.

Odour : Characteristic. [Slight]

Odour threshold : Not applicable.

7.5-9 pН : 0 **Melting point**

Boiling point : Lowest known value: 100°C (212°F) (water).

: Not available. Flash point

Evaporation rate : 0.36 (water) compared with butyl acetate

Flammability (solid, gas) : Not applicable. Lower and upper explosive : Not applicable.

(flammable) limits

Vapour pressure

: Highest known value: 3.2 kPa (23.8 mm Hg) (at 20°C) (water). Weighted average:

2.88 kPa (21.6 mm Hg) (at 20°C)

Vapour density : Not available. Relative density : 1.96 g/cm³

Solubility : Easily soluble in the following materials: cold water and hot water.

Partition coefficient: n-

octanol/water

: Not available.

: Lowest known value: 444.85°C (832.7°F) (soybean oil). **Auto-ignition temperature**

Decomposition temperature : Not available.

Viscosity : 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 : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition

products

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

should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
3-iodo-2-propynyl butylcarbamate (IPBC)	LD50 Oral	Rat	1470 mg/kg	-
2-octyl-2h-isothiazol-3-one (OIT)	LD50 Dermal	Rabbit	690 mg/kg	-
	LD50 Dermal	Rabbit	690 mg/kg	-
	LD50 Oral	Rat	550 mg/kg	-
C(M)IT/MIT (3:1)	LD50 Oral	Rat	53 mg/kg	-

: 22 03 2023 Date of issue 6/11

Section 11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1-Propanaminium, 3-amino- N-(carboxymethyl)-N,N- dimethyl-, N-(C8-18 and C18-unsatd. acyl) derivs., inner salts	Eyes - Irritant	Mammal - species unspecified	-	-	-
3-iodo-2-propynyl butylcarbamate (IPBC)	Eyes - Irritant	Mammal - species unspecified	-	-	-
bronopol	Eyes - Irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Human	_	10 milligrams	
	Skin - Moderate irritant	Rabbit	-	80 milligrams	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
3-iodo-2-propynyl butylcarbamate (IPBC)	skin	Mammal - species unspecified	Sensitising
2-octyl-2h-isothiazol-3-one (OIT)	skin	Mammal - species unspecified	Sensitising
C(M)IT/MIT (3:1)	skin	Mammal - species unspecified	Sensitising

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	• •	Route of exposure	Target organs
bronopol	Category 3		Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
bismuth vanadium oxide (bivo4)	Category 2	inhalation	-
3-iodo-2-propynyl butylcarbamate (IPBC)	Category 1	-	trachea

Aspiration hazard

Not available.

Date of issue : 22.03.2023 7/11

Section 11. Toxicological information

Information on likely routes : Not available.

of exposure

Potential acute health effects

Eye contact : No known significant effects or critical hazards. Inhalation : No known significant effects or critical hazards. **Skin contact** : No known significant effects or critical hazards. Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

: No specific data. **Eye contact** Inhalation : No specific data. Skin contact : No specific data. : No specific data. Ingestion

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

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects

: Not available.

Long term exposure

Potential immediate

: Not available.

effects

Potential delayed effects

: Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards. : No known significant effects or critical hazards. Carcinogenicity Mutagenicity : No known significant effects or critical hazards. **Teratogenicity** : No known significant effects or critical hazards. **Developmental effects** : No known significant effects or critical hazards. **Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
trizinc bis(orthophosphate)	Acute LC50 0.14 mg/l Chronic NOEC 0.1 mg/l	Fish - Oncorhynchus mykiss Micro-organism	96 hours 4 hours
1-Propanaminium, 3-amino- N-(carboxymethyl)-N,N- dimethyl-, N-(C8-18 and C18-unsatd. acyl) derivs., inner salts	Acute EC50 1.9 mg/l	Algae	48 hours
	Acute LC50 11.1 mg/l	Fish	96 hours
3-iodo-2-propynyl	Acute EC50 0.022 mg/l	Algae - Scenedesmus	72 hours

: 22.03.2023 Date of issue

8/11

Section 12. Ecological information

butylcarbamate (IPBC)		subspicatus	
,	Acute EC50 0.16 mg/l	Crustaceans - Daphnia magna	48 hours
	Acute LC50 0.067 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 70 ppb Fresh water	Fish - Oncorhynchus mykiss -	96 hours
		Juvenile (Fledgling, Hatchling,	
		Weanling)	
bronopol	Acute EC50 0.18 ppm Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 1.6 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 11.17 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
	Chronic NOEC 1.94 ppm	Fish - Oncorhynchus mykiss	49 days
2-octyl-2h-isothiazol-3-one	Acute EC50 0.084 mg/l	Algae - Scenedesmus	72 hours
(OIT)		subspicatus	
	Acute EC50 0.32 mg/l	Daphnia	48 hours
	Acute LC50 0.047 mg/l	Fish	96 hours
C(M)IT/MIT (3:1)	Acute EC50 0.048 mg/l	Algae - Pseudokirchneriella	72 hours
		subcapitata	
	Acute EC50 0.0052 mg/l	Algae - Skeletonema costatum	48 hours
	Acute EC50 0.1 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.22 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Acute NOEC 0.00064 mg/l	Algae - Skeletonema costatum	48 hours
	Chronic NOEC 0.0012 mg/l	Algae - Pseudokirchneriella	72 hours
		subcapitata	
	Chronic NOEC 0.004 mg/l	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.098 mg/l	Fish - Oncorhynchus mykiss	28 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
trizinc bis(orthophosphate) 3-iodo-2-propynyl butylcarbamate (IPBC)	-	-	Not readily Readily
C(M)IT/MIT (3:1)	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
trizinc bis(orthophosphate)	-	60960	high
bismuth vanadium oxide	-	<14	low
(bivo4)			
1-Propanaminium, 3-amino-	1.79	71	low
N-(carboxymethyl)-N,N-			
dimethyl-, N-(C8-18 and			
C18-unsatd. acyl) derivs.,			
inner salts			
bronopol	0.18	-	low
2-octyl-2h-isothiazol-3-one (OIT)	2.45	-	low
C(M)IT/MIT (3:1)	-	3.16	low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

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

Date of issue : 22.03.2023 9/11

Section 13. Disposal information

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	ADR/RID	IMDG	IATA
UN number	UN3082	UN3082	UN3082	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (PAINT)	Environmentally hazardous substance, liquid, n.o.s. (PAINT)	Environmentally hazardous substance, liquid, n.o.s. (PAINT). Marine pollutant (trizinc bis (orthophosphate), 2-octyl-2h-isothiazol- 3-one (OIT))	Environmentally hazardous substance, liquid, n.o.s. (PAINT)
Transport hazard class(es)	9	9	9	9
Packing group	III	III	III	III
Environmental hazards	Yes.	Yes.	Yes.	Yes.
Additional information	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.	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 (-)	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	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: Not available. to IMO instruments

Date of issue : 22.03.2023

Section 15. Regulatory information

Malaysia Inventory (EHS

: Not determined

Register)

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

History

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revision

Date of previous issue : 24.02.2020

Version : 1

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,

11/11

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

Procedure used to derive the classification

Classification	Justification
HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - 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.

Date of issue : 22.03.2023