

# SAFETY DATA SHEET



## Resist 86 Comp A

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

<b>Product name</b>	: Resist 86 Comp A
<b>Product code</b>	: 684
<b>Product description</b>	: Paint.
<b>Product type</b>	: Liquid.
<b>Other means of identification</b>	: Not available.

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

#### 1.3 Details of the supplier of the safety data sheet

Jotun Boya Sanayi ve Ticaret A.Ş.  
Balabandere Caddesi, Hilpark Suites Sitesi No: 10, İstinye 34460 Sarıyer, İstanbul

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**Date of previous issue** : 29.11.2023

#### 1.4 Emergency telephone number

##### National Poison Information Center

- +90 224 442 82 93 Uludağ Üniversitesi Zehir Danışma Merkezi ([www.uludag.edu.tr/uludag/zehir.html](http://www.uludag.edu.tr/uludag/zehir.html))  
a. ACİL DURUM TELEFONU: Zehirlenme durumlarında gerektiğinde ulusal zehir merkezinin (UZEM) 114 nolu telefonunu arayınız.  
b. ACİL İLK YARDIM MERKEZİ:112  
c. İTFAİYE:110

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

##### Classification according to regulation SEA: RG.-10/12/2020-31330

Flam. Liq. 2, H225  
Skin Irrit. 2, H315  
Eye Irrit. 2, H319

The product is classified as hazardous according to Regulation SEA: RG.-10/12/2020-31330.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

#### 2.2 Label elements

## SECTION 2: Hazards identification

**Hazard pictograms** :



**Signal word** :

Danger.

**Hazard statements** :

H225 - Highly flammable liquid and vapour.  
 H315 - Causes skin irritation.  
 H319 - Causes serious eye irritation.

**Precautionary statements**

**General** :

Not applicable.

**Prevention** :

P280 - Wear protective gloves. Wear eye or face protection.  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Response** :

P362 + P364 - Take off contaminated clothing and wash it before reuse.  
 P302 + P352 - IF ON SKIN: Wash with plenty of water.  
 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.

**Hazardous ingredients** :

2-butoxyethanol

**Supplemental label elements** :

Not applicable.

**Annex 17 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** :

Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** :

Not applicable.

**Tactile warning of danger** :

Not applicable.

### 2.3 Other hazards

**Product meets the criteria for PBT or vPvB** :

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** :

None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Mixture

Product/ingredient name	Identifiers	%	SEA: RG.-10/12/2020-31330	Type
ethanol	EC: 200-578-6 CAS: 64-17-5	≥25 - ≤50	Flam. Liq. 2, H225 Eye Irrit. 2, H319	[1] [2]
1-methoxy-2-propanol	EC: 203-539-1 CAS: 107-98-2	≥10 - ≤18	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
2-butoxyethanol	EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	≤13	Acute Tox. 4, H302 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1] [2]

### SECTION 3: Composition/information on ingredients

tetraethyl silicate	EC: 201-083-8 CAS: 78-10-4 Index: 014-005-00-0	≤5	Flam. Liq. 3, H226 Acute Tox. 4, H332 Eye Irrit. 2, H319 STOT SE 3, H335	[1] [2]
propan-2-ol	EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0	≤1.6	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336  <b>See Section 16 for the full text of the H statements declared above.</b>	[1] [2]

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, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

#### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

### SECTION 4: First aid measures

#### 4.1 Description of 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 adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. 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 adverse health effects persist or are severe. 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.
- 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.

#### 4.2 Most important symptoms and effects, both 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.
- 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

## SECTION 4: First aid measures

- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 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.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides

### 5.3 Advice for firefighters

- 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 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).

### 6.3 Methods and material for containment and cleaning up

## SECTION 6: Accidental release measures

- 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 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. 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.
- 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.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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.

See Technical Data Sheet / packaging for further information.

### Regulation on the prevention of major industrial accidents and reduction of their effects - Reporting thresholds

#### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne

### 7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
Ethanol	<b>ACGIH TLV (United States, 7/2023).</b> STEL: 1000 ppm 15 minutes.
1-methoxypropan-2-ol	<b>TR ISGGM OEL (Turkey, 12/2013). Absorbed through skin.</b> TWA: 375 mg/m <sup>3</sup> 8 hours. TWA: 100 ppm 8 hours. STEL: 568 mg/m <sup>3</sup> 15 minutes. STEL: 150 ppm 15 minutes.
2-butoxyethanol	<b>TR ISGGM OEL (Turkey, 12/2013). Absorbed through skin.</b> TWA: 98 mg/m <sup>3</sup> 8 hours. TWA: 20 ppm 8 hours. STEL: 246 mg/m <sup>3</sup> 15 minutes. STEL: 50 ppm 15 minutes.
tetraethyl silicate	<b>EU OEL (Europe, 1/2022). Notes:</b> TWA: 5 ppm 8 hours. TWA: 44 mg/m <sup>3</sup> 8 hours.
propan-2-ol	<b>ACGIH TLV (United States, 7/2023).</b> TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes.

#### Biological exposure indices

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Ethanol	DNEL	Long term Inhalation	380 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Oral	87 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	114 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	206 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	343 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	950 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	1900 mg/m <sup>3</sup>	Workers	Local
1-methoxypropan-2-ol	DNEL	Long term Oral	33 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	43.9 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	78 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	183 mg/kg bw/day	Workers	Systemic
	DNEL	Long term	369 mg/m <sup>3</sup>	Workers	Systemic

**SECTION 8: Exposure controls/personal protection**

2-butoxyethanol	DNEL	Inhalation Short term	553.5 mg/ m <sup>3</sup>	Workers	Local	
	DNEL	Inhalation Short term	553.5 mg/ m <sup>3</sup>	Workers	Systemic	
	DNEL	Inhalation Short term Dermal	89 mg/kg bw/day	Workers	Systemic	
	DNEL	Inhalation Short term	663 mg/m <sup>3</sup>	Workers	Systemic	
	DNEL	Inhalation Short term	246 mg/m <sup>3</sup>	Workers	Local	
	DNEL	Dermal Long term	75 mg/kg bw/day	Workers	Systemic	
	DNEL	Inhalation Long term	98 mg/m <sup>3</sup>	Workers	Systemic	
	DNEL	Dermal Short term	44.5 mg/ kg bw/day	General population [Consumers]	Systemic	
	DNEL	Inhalation Short term	426 mg/m <sup>3</sup>	General population [Consumers]	Systemic	
	DNEL	Oral Short term	13.4 mg/ kg bw/day	Workers	Systemic	
	DNEL	Inhalation Short term	123 mg/m <sup>3</sup>	General population [Consumers]	Local	
	DNEL	Dermal Long term	38 mg/kg bw/day	General population [Consumers]	Systemic	
	DNEL	Inhalation Long term	49 mg/m <sup>3</sup>	General population [Consumers]	Systemic	
	DNEL	Oral Long term	3.2 mg/kg bw/day	General population [Consumers]	Systemic	
	DNEL	Oral Long term	6.3 mg/kg bw/day	General population	Systemic	
	DNEL	Oral Short term	26.7 mg/ kg bw/day	General population	Systemic	
	DNEL	Inhalation Long term	59 mg/m <sup>3</sup>	General population	Systemic	
	tetraethyl silicate	DNEL	Inhalation Long term	98 mg/m <sup>3</sup>	Workers	Systemic
		DNEL	Inhalation Short term	147 mg/m <sup>3</sup>	General population	Local
		DNEL	Inhalation Short term	246 mg/m <sup>3</sup>	Workers	Local
DNEL		Inhalation Short term	426 mg/m <sup>3</sup>	General population	Systemic	
DNEL		Inhalation Short term	1091 mg/ m <sup>3</sup>	Workers	Systemic	
DNEL		Dermal Short term	12.1 mg/ kg bw/day	Workers	Systemic	
DNEL		Inhalation Short term	85 mg/m <sup>3</sup>	Workers	Systemic	
DNEL		Inhalation Short term	85 mg/m <sup>3</sup>	Workers	Local	
DNEL		Dermal Long term	12.1 mg/ kg bw/day	Workers	Systemic	
DNEL		Inhalation Long term	85 mg/m <sup>3</sup>	Workers	Systemic	
DNEL		Inhalation Long term	85 mg/m <sup>3</sup>	Workers	Local	
DNEL		Dermal Short term	8.4 mg/kg	General	Systemic	



**SECTION 8: Exposure controls/personal protection**

propan-2-ol			bw/day	population [Consumers]	
	DNEL	Short term Inhalation	25 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	25 mg/m <sup>3</sup>	General population [Consumers]	Local
	DNEL	Long term Dermal	8.4 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	25 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	25 mg/m <sup>3</sup>	General population [Consumers]	Local
	DNEL	Long term Dermal	1.8 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	5.3 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	5.3 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	5.3 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	5.3 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	6.3 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	44 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	44 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	44 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	44 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	888 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	500 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	319 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	89 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Oral	26 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	500 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	888 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	26 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	51 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	89 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Inhalation	178 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	319 mg/kg bw/day	General population	Systemic
DNEL	Short term	1000 mg/	Workers	Systemic	



**SECTION 8: Exposure controls/personal protection**

		Inhalation	m <sup>3</sup>		
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**PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
1-methoxypropan-2-ol	Fresh water	10 mg/l	-
	Marine	1 mg/l	-
	Sewage Treatment Plant	100 mg/l	-
	Fresh water sediment	52.3 mg/kg dwt	-
	Marine water sediment	5.2 mg/kg dwt	-
	Soil	5.49 mg/kg dwt	-
2-butoxyethanol	Fresh water	8.8 mg/l	-
	Marine	0.88 mg/l	-
	Sewage Treatment Plant	463 mg/l	-
	Fresh water sediment	34.6 mg/kg dwt	-
	Marine water sediment	3.46 mg/kg dwt	-
	Soil	3.13 mg/kg dwt	-
tetraethyl silicate	Secondary Poisoning	20 mg/kg	-
	Fresh water	0.19 mg/l	-
	Marine	0.019 mg/l	-
	Sewage Treatment Plant	4000 mg/l	-
	Fresh water sediment	0.83 mg/kg dwt	-
	Marine water sediment	0.083 mg/kg dwt	-
propan-2-ol	Soil	0.05 mg/kg dwt	-
	Fresh water	140.9 mg/l	-
	Marine	140.9 mg/l	-
	Sewage Treatment Plant	2251 mg/l	-
	Fresh water sediment	552 mg/kg dwt	-
	Marine water sediment	552 mg/kg dwt	-
	Soil	28 mg/kg dwt	-
	Secondary Poisoning	160 mg/kg	-

**8.2 Exposure controls**

**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.

**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: chemical splash goggles.

**Skin protection**

**Hand 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

## SECTION 8: Exposure controls/personal protection

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: butyl rubber (> 0.4 mm), Viton® (> 0.7 mm), 4H/Silver Shield® (> 0.07 mm)

May be used, gloves(breakthrough time) 4 - 8 hours: nitrile rubber (> 0.75 mm), neoprene (> 0.35 mm), Teflon (> 0.35 mm)

Not recommended, gloves(breakthrough time) < 1 hour: PVC (> 0.5 mm), polyvinyl alcohol (PVA) (> 0.3 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

: Use chemical-resistant protective suit / disposable overall.

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. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

### 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.

### 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.

## SECTION 9: Physical and chemical properties

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

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	: Liquid.
Colour	: Grey
Odour	: Characteristic.
Odour threshold	: Not applicable.
Melting point/freezing point	: Not applicable.
Initial boiling point and boiling range	: >36°C (>96.8°F)
Flammability (solid, gas)	: Not applicable.
Upper/lower flammability or explosive limits	: <input checked="" type="checkbox"/> Greatest known range: Lower: 1.3% Upper: 23% (tetraethyl silicate)
Flash point	: Closed cup: 14°C (57.2°F)
Auto-ignition temperature	: Lowest known value: 222°C (431.6°F) (tetraethyl silicate).
Decomposition temperature	: Not available.
pH	: Not applicable.

**SECTION 9: Physical and chemical properties****Viscosity** : Kinematic (40°C): >20.5 mm<sup>2</sup>/s**Solubility(ies)** :

Media	Result
cold water	Not soluble
hot water	Not soluble

**Partition coefficient: n-octanol/ water** : Not available.**Vapour pressure** : Highest known value: 5.7 kPa (42.9 mm Hg) (at 20°C) (ethanol). Weighted average: 3.44 kPa (25.8 mm Hg) (at 20°C)  
Highest known value: 1.7 (ethanol) Weighted average: 1.2 compared with butyl acetate**Density** : 1.09 to 1.099 g/cm<sup>3</sup>**Vapour density** : Highest known value: 7.22 (Air = 1) (tetraethyl silicate). Weighted average: 2.7 (Air = 1)**Explosive properties** : Not available.**Oxidising properties** : Not available.**Particle characteristics****Median particle size** : Not applicable.**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity****10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.**10.2 Chemical stability** : The product is stable.**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.**10.4 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.**10.5 Incompatible materials** : Reactive or incompatible with the following materials:  
oxidising materials**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.**Shelf life at 23 °C** : 6 month(s)**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Ethanol	LC50 Inhalation Vapour	Rat	124700 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	13 g/kg	-
1-methoxypropan-2-ol	LD50 Oral	Rat	6600 mg/kg	-
	LD50 Oral	Guinea pig - Male, Female	1414 mg/kg	-
		Rat - Male, Female	1300 mg/kg	-
2-butoxyethanol	LD50 Oral	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-

**Conclusion/Summary** : Not available.**Acute toxicity estimates**

**SECTION 11: Toxicological information**

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Resist 86 Comp A	12000.0	N/A	N/A	26.9	N/A
ethanol	7000	N/A	N/A	124.7	N/A
1-methoxy-2-propanol	6600	13000	N/A	N/A	N/A
2-butoxyethanol	1200	N/A	N/A	3	N/A
tetraethyl silicate	N/A	N/A	N/A	11	N/A
propan-2-ol	5000	12800	N/A	N/A	N/A

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ethanol	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Skin - Mild irritant	Rabbit	-	400 milligrams	-
1-methoxypropan-2-ol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
2-butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
tetraethyl silicate	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
propan-2-ol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

**Conclusion/Summary** : Not available.

**Sensitisation**

**Conclusion/Summary** : Not available.

**Mutagenicity**

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

**Conclusion/Summary** : Not available.

**Teratogenicity**

**Conclusion/Summary** : Not available.

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

Product/ingredient name	Category	Route of exposure	Target organs
1-methoxypropan-2-ol	Category 3	-	Narcotic effects
tetraethyl silicate	Category 3	-	Respiratory tract irritation
propan-2-ol	Category 3	-	Narcotic effects

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

Not available.

**Aspiration hazard**

Not available.

**Information on likely routes of exposure** : Not available.

**SECTION 11: Toxicological information****Potential acute health effects**

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- 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** : No specific data.
- 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****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.

- Conclusion/Summary** : Not available.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

**Other information** : Not available.**SECTION 12: Ecological information****12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
2-butoxyethanol	Acute EC50 1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000 mg/l Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hours
propan-2-ol	Acute EC50 10100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours

**Conclusion/Summary** : No known significant effects or critical hazards.**12.2 Persistence and degradability****Conclusion/Summary** : Not available.**12.3 Bioaccumulative potential**

**SECTION 12: Ecological information**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Ethanol	-0.35	-	low
1-methoxypropan-2-ol	<1	-	low
2-butoxyethanol	0.81	-	low
tetraethyl silicate	3.18	-	low
propan-2-ol	0.05	-	low

**12.4 Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods****Product**

**Methods of disposal** : 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.

**Hazardous waste** : Yes.

**Waste list**

Waste code	Waste code definition
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances





**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special 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**

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	Paint	Paint	Paint	Paint
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	No.	No.	No.

### Additional information

**ADR/RID** : **Hazard identification number** 33  
**Special provisions** 640 (C)  
**Tunnel code** (D/E)

**ADN** : **Special provisions** 640 (C)

**IMDG** : **Emergency schedules** F-E, S-E

**14.6 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.

**14.7 Transport in bulk according to IMO instruments** : Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Turkey Regulation No. 30105, KKDİK

#### Annex 14 - List of substances subject to authorization

##### Annex 14

None of the components are listed.

##### Substances of very high concern

None of the components are listed.

**Annex 17 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

#### Ozone depleting substances

Not listed.

#### Regulation on the prevention of major industrial accidents and reduction of their effects

This product is controlled under the Regulation on the prevention of major industrial accidents and reduction of their effects.

#### Danger criteria



## SECTION 15: Regulatory information

### Category

P5c

### EU regulations

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

##### Annex XIV

None of the components are listed.

##### Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions** : Not applicable.  
**on the manufacture,  
 placing on the market  
 and use of certain  
 dangerous substances,  
 mixtures and articles**

#### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

#### Persistent Organic Pollutants

Not listed.

### 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.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information

📌 Indicates information that has changed from previously issued version.

### Abbreviations and acronyms

: ATE = Acute Toxicity Estimate  
 EUH statement = SEA-specific Hazard statement  
 N/A = Not available  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 SGG = Segregation Group  
 vPvB = Very Persistent and Very Bioaccumulative

#### Procedure used to derive the classification according to regulation SEA: RG.-10/12/2020-31330

Classification	Justification
Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319	On basis of test data Calculation method Calculation method

## SECTION 16: Other information

### Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

### Full text of classifications [SEA/GHS]

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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### Notice to reader

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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.