

# SAFETY DATA SHEET



## Resist 86 Comp A

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

#### 1.1 Product identifier

**Product name** : Resist 86 Comp A  
**Product code** : 684  
**Product description** : Paint.  
**Product type** : Liquid.  
**Other means of identification** : Not available.  
**UFI** : ERV1-G0PH-G00K-9ARN

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

Use in coatings - Industrial use  
Use in coatings - Professional use

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

Jotun Paints (Europe) Ltd.  
Stather Road  
Flixborough, Scunthorpe  
North Lincolnshire  
DN15 8RR  
England

Tel: +44 17 24 40 00 00  
Fax: +44 17 24 40 01 00

Jotun A/S  
P.O.Box 2021  
3202 Sandefjord  
Norway

Tel: + 47 33 45 70 00  
Fax: +47 33 45 72 42

SDSJotun@jotun.no

#### 1.4 Emergency telephone number

Contact NHS Direct; phone 0845 4647 or 111. Open 24/7.

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

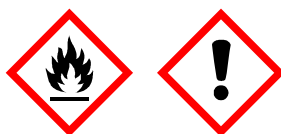
**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

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

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.  
See Section 11 for more detailed information on health effects and symptoms.

#### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Danger.

**Hazard statements** : H225 - Highly flammable liquid and vapour.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.

**Resist 86 Comp A****SECTION 2: Hazards identification****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 XVII - 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 according to Regulation (EC) No. 1907/2006, Annex XIII** : 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	Weight %	Regulation (EC) No. 1272/2008 [CLP]	Type
ethanol	REACH #: 01-2119457610-43 EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≥25 - ≤50	Flam. Liq. 2, H225 Eye Irrit. 2, H319	[1] [2]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≥10 - ≤18	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
2-butoxyethanol	REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	≥10 - ≤25	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1] [2]
tetraethyl silicate	REACH #:	≤5	Flam. Liq. 3, H226	[1] [2]

**Resist 86 Comp A****SECTION 3: Composition/information on ingredients**

propan-2-ol	01-2119496195-28 EC: 201-083-8 CAS: 78-10-4 Index: 014-005-00-0 REACH #: 01-2119457558-25 EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0	≤1.6	Acute Tox. 4, H332 Eye Irrit. 2, H319 STOT SE 3, H335  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]
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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, vPvBs or Substances of equivalent concern, 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

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

[6] Additional disclosure due to company policy

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

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- 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**

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. 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.

**Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No specific data.

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## SECTION 4: First aid measures

- 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.

See toxicological information (Section 11)

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

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

- Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
- Hazardous combustion products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
- Special protective equipment for fire-fighters** : Appropriate breathing apparatus may be required.

## SECTION 6: Accidental release measures

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

- For non-emergency personnel** : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.
- 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

- : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

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

- : 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). Preferably clean with a detergent. Avoid using solvents.

### 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.

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## 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

Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.  
In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.  
Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type.  
Keep away from heat, sparks and flame. No sparking tools should be used.  
Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.  
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.  
Put on appropriate personal protective equipment (see Section 8).  
Never use pressure to empty. Container is not a pressure vessel.  
Always keep in containers made from the same material as the original one.  
Comply with the health and safety at work laws.  
Do not allow to enter drains or watercourses.

#### Information on fire and explosion protection

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

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

Store in accordance with local regulations.

#### Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

#### Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end use(s)

**Recommendations** : Not available.

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

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
ethanol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 1920 mg/m <sup>3</sup> 8 hours. TWA: 1000 ppm 8 hours.
1-methoxy-2-propanol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b> STEL: 560 mg/m <sup>3</sup> 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m <sup>3</sup> 8 hours. TWA: 100 ppm 8 hours.
2-butoxyethanol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed</b>

**Resist 86 Comp A****SECTION 8: Exposure controls/personal protection**

tetraethyl silicate	through skin. STEL: 50 ppm 15 minutes. TWA: 25 ppm 8 hours. STEL: 246 mg/m <sup>3</sup> 15 minutes. TWA: 123 mg/m <sup>3</sup> 8 hours. <b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 44 mg/m <sup>3</sup> 8 hours. TWA: 5 ppm 8 hours.
propan-2-ol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> STEL: 1250 mg/m <sup>3</sup> 15 minutes. STEL: 500 ppm 15 minutes. TWA: 999 mg/m <sup>3</sup> 8 hours. TWA: 400 ppm 8 hours.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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	Exposure	Value	Population	Effects
ethanol	Long term Oral	87 mg/kg bw/day	General population	Systemic
	Long term Inhalation	114 mg/m <sup>3</sup>	General population	Systemic
	Long term Dermal	206 mg/kg bw/day	General population	Systemic
	Long term Dermal	343 mg/kg bw/day	Workers	Systemic
	Short term Inhalation	950 mg/m <sup>3</sup>	General population	Local
	Long term Inhalation	950 mg/m <sup>3</sup>	Workers	Systemic
	Short term Inhalation	1900 mg/m <sup>3</sup>	Workers	Local
1-methoxy-2-propanol	Long term Oral	33 mg/kg bw/day	General population	Systemic
	Long term Inhalation	43.9 mg/m <sup>3</sup>	General population	Systemic
	Long term Dermal	78 mg/kg bw/day	General population	Systemic
	Long term Dermal	183 mg/kg bw/day	Workers	Systemic
	Long term Inhalation	369 mg/m <sup>3</sup>	Workers	Systemic
	Short term Inhalation	553.5 mg/m <sup>3</sup>	Workers	Local
	Short term Inhalation	553.5 mg/m <sup>3</sup>	Workers	Systemic
2-butoxyethanol	Short term Dermal	89 mg/kg bw/day	Workers	Systemic
	Short term Inhalation	663 mg/m <sup>3</sup>	Workers	Systemic



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tetraethyl silicate	Short term Inhalation	246 mg/m <sup>3</sup>	Workers	Local
	Long term Dermal	75 mg/kg bw/day	Workers	Systemic
	Long term Inhalation	98 mg/m <sup>3</sup>	Workers	Systemic
	Short term Dermal	44.5 mg/kg bw/day	General population [Consumers]	Systemic
	Short term Inhalation	426 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	Short term Oral	13.4 mg/kg bw/day	Workers	Systemic
	Short term Inhalation	123 mg/m <sup>3</sup>	General population [Consumers]	Local
	Long term Dermal	38 mg/kg bw/day	General population [Consumers]	Systemic
	Long term Inhalation	49 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	Long term Oral	3.2 mg/kg bw/day	General population [Consumers]	Systemic
	Long term Oral	6.3 mg/kg bw/day	General population	Systemic
	Short term Oral	26.7 mg/kg bw/day	General population	Systemic
	Long term Inhalation	59 mg/m <sup>3</sup>	General population	Systemic
	Long term Dermal	75 mg/kg bw/day	General population	Systemic
	Short term Dermal	89 mg/kg bw/day	General population	Systemic
	Short term Dermal	89 mg/kg bw/day	Workers	Systemic
	Long term Inhalation	98 mg/m <sup>3</sup>	Workers	Systemic
	Long term Dermal	125 mg/kg bw/day	Workers	Systemic
	Short term Inhalation	147 mg/m <sup>3</sup>	General population	Local
	Short term Inhalation	246 mg/m <sup>3</sup>	Workers	Local
	Short term Inhalation	426 mg/m <sup>3</sup>	General population	Systemic
	Short term Inhalation	1091 mg/m <sup>3</sup>	Workers	Systemic
	Short term Dermal	12.1 mg/kg bw/day	Workers	Systemic
	Short term Inhalation	85 mg/m <sup>3</sup>	Workers	Systemic
	Short term Inhalation	85 mg/m <sup>3</sup>	Workers	Local
	Long term Dermal	12.1 mg/kg bw/day	Workers	Systemic
	Long term Inhalation	85 mg/m <sup>3</sup>	Workers	Systemic
	Long term Inhalation	85 mg/m <sup>3</sup>	Workers	Local
	Short term Dermal	8.4 mg/kg	General	Systemic

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propan-2-ol		bw/day	population [Consumers]	
	Short term Inhalation	25 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	Short term Inhalation	25 mg/m <sup>3</sup>	General population [Consumers]	Local
	Long term Dermal	8.4 mg/kg bw/day	General population [Consumers]	Systemic
	Long term Inhalation	25 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	Long term Inhalation	25 mg/m <sup>3</sup>	General population [Consumers]	Local
	Short term Dermal	3 mg/kg bw/day	General population	Systemic
	Long term Dermal	3 mg/kg bw/day	General population	Systemic
	Short term Inhalation	14 mg/m <sup>3</sup>	General population	Local
	Long term Inhalation	14 mg/m <sup>3</sup>	General population	Local
	Short term Inhalation	14 mg/m <sup>3</sup>	General population	Systemic
	Long term Inhalation	14 mg/m <sup>3</sup>	General population	Systemic
	Short term Dermal	56 mg/kg bw/day	Workers	Systemic
	Long term Dermal	56 mg/kg bw/day	Workers	Systemic
	Long term Dermal	888 mg/kg bw/day	Workers	Systemic
	Long term Inhalation	500 mg/m <sup>3</sup>	Workers	Systemic
	Long term Dermal	319 mg/kg bw/day	General population [Consumers]	Systemic
	Long term Inhalation	89 mg/m <sup>3</sup>	Workers	Systemic
	Long term Oral	26 mg/kg bw/day	General population [Consumers]	Systemic
	Long term Oral	26 mg/kg bw/day	General population	Systemic
	Long term Inhalation	89 mg/m <sup>3</sup>	General population	Systemic
	Long term Dermal	319 mg/kg bw/day	General population	Systemic
	Long term Inhalation	500 mg/m <sup>3</sup>	Workers	Systemic
	Long term Dermal	888 mg/kg bw/day	Workers	Systemic

**PNECs**



**Resist 86 Comp A****SECTION 8: Exposure controls/personal protection**

Product/ingredient name	Compartment Detail	Value	Method Detail
1-methoxy-2-propanol	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	-
2-butoxyethanol	Soil	5.49 mg/kg dwt	-
	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	-
tetraethyl silicate	Marine water sediment	3.46 mg/kg dwt	-
	Soil	3.13 mg/kg dwt	-
	Secondary Poisoning	20 mg/kg	-
	Fresh water	0.19 mg/l	-
	Marine	0.019 mg/l	-
propan-2-ol	Sewage Treatment Plant	4000 mg/l	-
	Fresh water sediment	0.83 mg/kg dwt	-
	Marine water sediment	0.083 mg/kg dwt	-
	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** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

**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 EN 166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin protection****Gloves**

: 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.

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## SECTION 8: Exposure controls/personal protection

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to EN374.

Recommended, gloves(breakthrough time) > 8 hours: Saranex, butyl rubber, Viton®, 4H, CPF 3, Responder

May be used, gloves(breakthrough time) 4 - 8 hours: nitrile rubber, neoprene, Teflon, PE

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

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** : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.
- 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.
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.
- Colour** : Grey
- Odour** : Characteristic.
- Odour threshold** : Not applicable.
- pH** : Not applicable.
- Melting point/freezing point** : Not applicable.
- Initial boiling point and boiling range** : >36°C (>96.8°F)
- Flash point** : Closed cup: 14°C
- Evaporation rate** : Highest known value: 1.7 (ethanol) Weighted average: 1.2 compared with butyl acetate
- Flammability (solid, gas)** : Not applicable.
- Upper/lower flammability or explosive limits** : 1.1 - 23%
- Vapour pressure** : Highest known value: 5.7 kPa (43 mm Hg) (at 20°C) (ethanol). Weighted average: 3.47 kPa (26.03 mm Hg) (at 20°C)
- Vapour density** : Highest known value: 7.22 (Air = 1) (tetraethyl silicate). Weighted average: 2.7 (Air = 1)
- Density** : 1.09 to 1.1 g/cm<sup>3</sup>
- Solubility(ies)** : Insoluble in the following materials: cold water and hot water.
- Partition coefficient: n-octanol/ water** : Not available.
- Auto-ignition temperature** : Lowest known value: 222°C (431.6°F) (tetraethyl silicate).

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<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (40°C): >0.205 cm <sup>2</sup> /s (>20.5 cSt)
<b>Explosive properties</b>	: Not available.
<b>Oxidising properties</b>	: Not available.

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: Stable under recommended storage and handling conditions (see Section 7).
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: When exposed to high temperatures may produce hazardous decomposition products.
<b>10.5 Incompatible materials</b>	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
<b>10.6 Hazardous decomposition products</b>	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. 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.

**Acute toxicity**

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

**Acute toxicity estimates**

Route	ATE value
Oral	12000 mg/kg
Inhalation (vapours)	77.46 mg/l

**Irritation/Corrosion**

**Resist 86 Comp A****SECTION 11: Toxicological information**

Product/ingredient name	Exposure	Species	Score	Exposure	Observation
ethanol	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Skin - Mild irritant	Rabbit	-	400 milligrams	-
1-methoxy-2-propanol	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	-	-	-
propan-2-ol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

**Sensitisation**

Based on available data, the classification criteria are not met.

**Mutagenicity**

No known significant effects or critical hazards.

**Carcinogenicity**

No known significant effects or critical hazards.

**Reproductive toxicity****Developmental effects** : No known significant effects or critical hazards.**Fertility effects** : No known significant effects or critical hazards.**Specific target organ toxicity (single exposure)**

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

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

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Other information** : None identified.**SECTION 12: Ecological information****12.1 Toxicity**

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is not classified as hazardous to the environment.

**Resist 86 Comp A****SECTION 12: Ecological information**

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

No known significant effects or critical hazards.

**12.2 Persistence and degradability**

Not available.

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
ethanol	-0.35	-	low
1-methoxy-2-propanol	<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.

**Disposal considerations** : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

**European waste catalogue (EWC)**

The European Waste Catalogue classification of this product, when disposed of as waste, is:

**Resist 86 Comp A****SECTION 13: Disposal considerations**

Waste code	Waste designation
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.

**Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Result	European waste catalogue (EWC)
CEPE Paint Guidelines	15 01 10* packaging containing residues of or contaminated by hazardous substances

**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**

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	UN1263	UN1263	UN1263	UN1263
<b>14.2 UN proper shipping name</b>	Paint	Paint	Paint	Paint
<b>14.3 Transport hazard class(es)</b>	3 	3 	3 	3 
<b>14.4 Packing group</b>	II	II	II	II
<b>14.5 Environmental hazards</b>	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 applicable.

**Resist 86 Comp A**

## SECTION 15: Regulatory information

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

#### 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**

#### Other EU regulations

**VOC** : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

**VOC for Ready-for-Use  
Mixture** : Not available.

**Europe inventory** : Not determined.

#### Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

#### Seveso Directive

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

#### National regulations

**Industrial use** : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

#### 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** : Not applicable.



**Resist 86 Comp A**

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

### Abbreviations and acronyms

: ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

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

### 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.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

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

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