

**SAFETY DATA SHEET****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

**Product name** Alusol XT FF

**Product code** 463698-FR01

**SDS no.** 463698

**Product type** Liquid.

**Use of the substance/  
mixture**

Metalworking fluid - soluble.

For specific application advice see appropriate Technical Data Sheet or consult our company representative.

**1.3 Details of the supplier of the safety data sheet****Supplier**

ECOTIP  
Orce Nikolov 202-3/1  
1000 Skopje, Macedonia  
Macedonia

+386 (0) 15136242

**E-mail address**

MSDSadvice@bp.com

**1.4 Emergency telephone number**

**EMERGENCY  
TELEPHONE NUMBER** Carechem: +44 (0) 1235 239 670 (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]**

Skin Irrit. 2, H315

Eye Irrit. 2, H319

Repr. 1B, H360FD

Aquatic Chronic 3, H412

**Additional information** CLP: Not classified as hazardous when diluted below 15%

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

See sections 11 and 12 for more detailed information on health effects and environmental hazards.

**2.2 Label elements****Hazard pictograms****Signal word**

Danger

**Hazard statements**

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H360FD - May damage fertility. May damage the unborn child.

H412 - Harmful to aquatic life with long lasting effects.

**Precautionary statements****Prevention**

P201 - Obtain special instructions before use.

P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.

P273 - Avoid release to the environment.

P264 - Wash hands thoroughly after handling.

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## SECTION 2: Hazards identification

<b>Response</b>	P308 + P313 - IF exposed or concerned: Get medical attention. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of soap and 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 attention.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	Contains 3-iodo-2-propynyl butylcarbamate. May produce an allergic reaction.
<b>EU Regulation (EC) No. 1907/2006 (REACH)</b>	
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	Restricted to professional users.
<b>Special packaging requirements</b>	
<b>Containers to be fitted with child-resistant fastenings</b>	Not applicable.
<b>Tactile warning of danger</b>	Not applicable.

### 2.3 Other hazards

<b>Results of PBT and vPvB assessment</b>	Product does not meet the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII.
<b>Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b>	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
<b>Other hazards which do not result in classification</b>	Defatting to the skin. This product contains complex ionic mixtures within the fluid matrix which are an intrinsic part of the product and cannot be separated from the fluid matrix. Toxicology testing has shown the ionic-mixture containing products exhibit skin and eye irritation properties that are notably attenuated when compared to the individual acid and base components.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Distillates (petroleum), hydrotreated light naphthenic	REACH #: 01-2119480375-34 EC: 265-156-6 CAS: 64742-53-6 Index: 649-466-00-2	≥10 - ≤25	Asp. Tox. 1, H304	-	[1]
2-aminobutan-1-ol	REACH #: 01-2119492338-28 EC: 202-488-2 CAS: 96-20-8	<5	Acute Tox. 4, H302 Skin Corr. 1, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 3, H412	ATE [Oral] = 500 mg/ kg M [Acute] = 1	[1]
Boric acid	REACH #: 01-2119486683-25 EC: 233-139-2 CAS: 10043-35-3 Index: 005-007-00-2	≤5	Repr. 1B, H360FD	-	[1]
Alcohols, C16-18 and C18-unsatd., ethoxylated	EC: 500-236-9 CAS: 68920-66-1	≤5	Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 3, H412	M [Acute] = 1	[1]
Poly(oxy-1,2-ethanediyl), $\alpha$ -(carboxymethyl)- $\omega$ -(9Z)-9-octadecen-1-yloxy-	CAS: 57635-48-0	≤3	Eye Dam. 1, H318	-	[1]

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## SECTION 3: Composition/information on ingredients

Alkyl ether carboxylic acid carbonic acid, compound with 2-aminoethanol (1:2)	CAS: 53563-70-5 REACH #: 01-2119976326-28 EC: 244-600-2 CAS: 21829-52-7	≤3 ≤3	Eye Dam. 1, H318 Acute Tox. 4, H302	- ATE [Oral] = 500 mg/ kg	[1]
3-Iodo-2-propynyl butylcarbamate	EC: 259-627-5 CAS: 55406-53-6 Index: 616-212-00-7	≤0.3	Acute Tox. 4, H302 Acute Tox. 3, H331 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 1, H372 (larynx) Aquatic Acute 1, H400	ATE [Oral] = 500 mg/ kg ATE [Inhalation (vapours)] = 3 mg/l M [Acute] = 10 M [Chronic] = 1	[1]
sodium 4(or 5)-methyl-1H- benzotriazolide	REACH #: 01-2119980062-42 EC: 265-004-9 CAS: 64665-57-2	≤0.3	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Repr. 2, H361d Aquatic Chronic 2, H411	ATE [Oral] = 500 mg/ kg	[1]

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

[1] Substance classified with a health or environmental hazard

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### Eye contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

#### Skin contact

Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention.

#### Inhalation

If inhaled, remove to fresh air. Get medical attention immediately. 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.

#### Ingestion

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Wash out mouth with water if person is conscious. Get medical attention immediately.

#### 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

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

#### Potential acute health effects

##### Inhalation

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

##### Ingestion

Irritating to mouth, throat and stomach.

##### Skin contact

Causes skin irritation. Defatting to the skin.

##### Eye contact

Causes serious eye irritation.

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

##### Inhalation

Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

##### Ingestion

Ingestion of large quantities may cause nausea and diarrhoea.

##### Skin contact

Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

##### Eye contact

Potential risk of transient stinging or redness if accidental eye contact occurs.

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

#### Notes to physician

Treatment should in general be symptomatic and directed to relieving any effects. 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.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Use foam or all-purpose dry chemical to extinguish.
<b>Unsuitable extinguishing media</b>	Do not use water jet. The use of a water jet may cause the fire to spread by splashing the burning product.

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

<b>Hazards from the substance or mixture</b>	In a fire or if heated, a pressure increase will occur and the container may burst.
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<b>Hazardous combustion products</b>	Combustion products may include the following: carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide) nitrogen oxides (NO, NO <sub>2</sub> etc.)
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### 5.3 Advice for firefighters

<b>Special precautions for fire-fighters</b>	No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
<b>Special protective equipment for fire-fighters</b>	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

<b>For non-emergency personnel</b>	Contact 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. Floors may be slippery; use care to avoid falling. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

<b>6.2 Environmental precautions</b>	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.
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### 6.3 Methods and material for containment and cleaning up

<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
<b>Large spill</b>	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. 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. Contaminated absorbent material may pose the same hazard as the spilt product. Dispose of via a licensed waste disposal contractor.

### 6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 5 for firefighting measures.
See Section 8 for information on appropriate personal protective equipment.
See Section 12 for environmental precautions.
See Section 13 for additional waste treatment information.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Protective measures

Put on appropriate personal protective equipment. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid contact of spill material and runoff with soil and surface waterways. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse container. Empty containers retain product residue and can be hazardous. Avoid prolonged or repeated contact with skin. During metal working, solid particles from workpieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasions result in a penetration of the skin, first aid treatment should be applied as soon as reasonably possible. The presence of certain metals in the workpiece or tool, such as chromium, cobalt and nickel, can contaminate the metalworking fluid and as a result may induce allergic skin reactions. Evaporation of water from soluble cutting fluids during use may lead to an increase in concentration which may result in the development of skin conditions due to irritation and defatting. It is important to monitor fluid strength on a regular basis with a refractometer and maintain it at the recommended concentration. Lubricants from other sources and other contaminants should be minimised. Swarf and other debris should be removed.

#### Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. 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 dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Protect from freezing. Store locked up. Keep away from heat and direct sunlight. 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. Store and use only in equipment/containers designed for use with this product. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

#### Not suitable

Prolonged exposure to elevated temperature

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

#### 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.

#### Biological exposure indices

##### Product/ingredient name

##### Exposure indices

No exposure indices known.

#### Derived No Effect Level

Product/ingredient name	Type	Exposure	Value	Population	Effects
<chem>z-aminobutan-1-ol</chem>	DNEL	Long term Inhalation -	1.4 mg/m³	Workers	Systemic
	DNEL	Long term Dermal -	1.31 mg/kg bw/ day	Workers	Systemic
	DNEL	Long term Inhalation -	0.34 mg/m³	General population	Systemic
	DNEL	Long term Dermal -	0.66 mg/kg bw/ day	General population	Systemic
	DNEL	Long term Oral -	0.1 mg/kg bw/ day	General population	Systemic

#### Predicted No Effect Concentration

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## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
<chem>z-aminobutan-1-ol</chem>	-	Fresh water	0.001 mg/l	-
	-	Sewage Treatment Plant	10 mg/l	-
	-	Fresh water sediment	3.59 µg/kg dwt	-
	-	Marine water sediment	0.359 µg/kg dwt	-
	-	Soil	0.18 µg/kg dwt	-

### 8.2 Exposure controls

#### Appropriate engineering controls

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained. Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

#### 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. Ensure that eyewash stations and safety showers are close to the workstation location.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. For protection against metal working fluids, respiratory protection that is classified as "resistant to oil" (class R) or oil proof (class P) should be selected where appropriate. Depending on the level of airborne contaminants, an air-purifying, half-mask respirator (with HEPA filter) including disposable (P- or R-series) (for oil mists less than 50mg/m<sup>3</sup>), or any powered, air-purifying respirator equipped with hood or helmet and HEPA filter (for oil mists less than 125 mg/m<sup>3</sup>). Where organic vapours are a potential hazard during metalworking operations, a combination particulate and organic vapour filter may be necessary.

The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

##### Eye/face protection

Safety glasses with side shields.

##### Skin protection

#### General Information:

Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced (even the best chemically resistant gloves will break down after repeated chemical exposures).

Gloves should be chosen in consultation with the supplier / manufacturer and taking account of a full assessment of the working conditions.

Wear suitable gloves.

Recommended: Nitrile gloves.

#### Breakthrough time:

Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are taken into account. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type.

Our recommendations on the selection of gloves are as follows:

#### Continuous contact:

Gloves with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable gloves can be obtained.

If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.

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## SECTION 8: Exposure controls/personal protection

Short-term / splash protection:

Recommended breakthrough times as above.

It is recognised that for short-term, transient exposures, gloves with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

### Glove Thickness:

For general applications, we recommend gloves with a thickness typically greater than 0.35 mm.

It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.

Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

### Skin and body

Use of protective clothing is good industrial practice.

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.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

### Refer to standards:

Respiratory protection: EN 529

Gloves: EN 420, EN 374

Eye protection: EN 166

Filtering half-mask: EN 149

Filtering half-mask with valve: EN 405

Half-mask: EN 140 plus filter

Full-face mask: EN 136 plus filter

Particulate filters: EN 143

Gas/combined filters: EN 14387

### 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

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state** Liquid.

**Colour** Yellow. [Light]

**Odour**  Unfragranced

**Odour threshold** Not available.

**pH** 9.1 [Conc. (% w/w): 6%]

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not available.

**Flash point** Closed cup: >100°C (>212°F) [Estimated. Water content interferes with flash point determination.]

**Evaporation rate** Not available.

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## SECTION 9: Physical and chemical properties

Flammability (solid, gas)	Not available.																																						
Lower and upper explosion limit	Not available.																																						
Vapour pressure	<table border="1"> <thead> <tr> <th rowspan="2">Ingredient name</th> <th colspan="2">Vapour Pressure at 20°C</th> <th colspan="2">Vapour pressure at 50°C</th> </tr> <tr> <th>mm Hg</th> <th>kPa</th> <th>Method</th> <th>mm Hg</th> </tr> </thead> <tbody> <tr> <td>Distillates (petroleum), hydrotreated heavy naphthenic</td><td>&lt;0.07501</td><td>&lt;0.01</td><td>ASTM D 5191</td><td></td></tr> <tr> <td>Water</td><td>17.5</td><td>2.3</td><td></td><td></td></tr> <tr> <td>2-aminobutan-1-ol</td><td>0.44</td><td>0.059</td><td>EU A.4</td><td></td></tr> <tr> <td>Boric acid</td><td>0.00000074</td><td>0.000000099</td><td>EU A.4</td><td></td></tr> <tr> <td>oxydipropanol</td><td>0.0098</td><td>0.0013</td><td>EU A.4</td><td></td></tr> </tbody> </table>					Ingredient name	Vapour Pressure at 20°C		Vapour pressure at 50°C		mm Hg	kPa	Method	mm Hg	Distillates (petroleum), hydrotreated heavy naphthenic	<0.07501	<0.01	ASTM D 5191		Water	17.5	2.3			2-aminobutan-1-ol	0.44	0.059	EU A.4		Boric acid	0.00000074	0.000000099	EU A.4		oxydipropanol	0.0098	0.0013	EU A.4	
Ingredient name	Vapour Pressure at 20°C		Vapour pressure at 50°C																																				
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oxydipropanol	0.0098	0.0013	EU A.4																																				
Vapour density	Not available.																																						
Relative density	Not available.																																						
Density	<1000 kg/m <sup>3</sup> (<1 g/cm <sup>3</sup> ) at 20°C																																						
Solubility(ies)	<table border="1"> <thead> <tr> <th>Media</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>water</td> <td>Soluble</td> </tr> </tbody> </table>					Media	Result	water	Soluble																														
Media	Result																																						
water	Soluble																																						
Partition coefficient: n-octanol/water	Not applicable.																																						
Auto-ignition temperature	Not available.																																						
Decomposition temperature	Not available.																																						
Viscosity	Kinematic: 52 mm <sup>2</sup> /s (52 cSt) at 40°C																																						
Explosive properties	Not available.																																						
Oxidising properties	Not available.																																						

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

10.1 Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
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. Under normal conditions of storage and use, hazardous polymerisation will not occur.
10.4 Conditions to avoid	Avoid excessive heat.
10.5 Incompatible materials	Reactive or incompatible with the following materials: oxidising materials. Slightly reactive or incompatible with the following materials: acids.
10.6 Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity estimates

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## 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)
Alusol XT FF	9578.0	N/A	N/A	1084.5	N/A
2-aminobutan-1-ol	500	N/A	N/A	N/A	N/A
carbonic acid, compound with 2-aminoethanol (1:2)	500	N/A	N/A	N/A	N/A
3-iodo-2-propynyl butylcarbamate	500	N/A	N/A	3	N/A
sodium 4(or 5)-methyl-1H-benzotriazolide	500	N/A	N/A	N/A	N/A

### Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

**Inhalation** Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Ingestion** Irritating to mouth, throat and stomach.

**Skin contact** Causes skin irritation. Defatting to the skin.

**Eye contact** Causes serious eye irritation.

### Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation** No specific data.

**Ingestion** No specific data.

**Skin contact** Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking

**Eye contact** Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

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

**Inhalation** Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

**Ingestion** Ingestion of large quantities may cause nausea and diarrhoea.

**Skin contact** Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

**Eye contact** Potential risk of transient stinging or redness if accidental eye contact occurs.

### Potential chronic health effects

**General** No known significant effects or critical hazards.

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

**Mutagenicity** No known significant effects or critical hazards.

**Developmental effects** May damage the unborn child.

**Fertility effects** May damage fertility.

## 11.2 Information on other hazards

### 11.2.1 Endocrine disrupting properties

Not available.

**Remarks - Endocrine disrupting properties for human health Summary/Conclusion (All ingredients)**  
Not available.

### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Environmental hazards** Harmful to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

Not expected to be rapidly degradable.

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## SECTION 12: Ecological information

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

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

**Mobility** Liquid. Soluble in water.

### 12.5 Results of PBT and vPvB assessment

Product does not meet the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII.

### 12.6 Other adverse effects

**Endocrine disrupting properties** No known significant effects or critical hazards.  
Not available.

**Remarks - Endocrine disrupting properties for environment Summary/Conclusion (All ingredients)** Not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** Undiluted fluid Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.  
Diluted Fluid The spent diluted fluid comprises a relatively stable emulsion. Dispose of via an authorised person/ licensed waste disposal contractor or by other suitable waste treatment techniques (e.g. emulsion splitting, coagulation and filtration) approved by the local authority. Spent fluid should never be disposed of down the drain. The aqueous phase should not be discharged into sewage systems unless provided for by local regulations; the non-aqueous phase should be disposed of as undiluted fluid. Note that separated aqueous solutions or effluents may contain metal salts as well as traces of oil and must be checked for conformity in these respects against consents given by the authorities before disposal. Further treatment may be required.

**Hazardous waste** Yes.

#### European waste catalogue (EWC)

Waste code	Waste designation
12 01 07*	mineral-based machining oils free of halogens (except emulsions and solutions)
12 01 09*	machining emulsions and solutions free of halogens

However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

#### Packaging

**Methods of disposal** Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.

Waste code	European waste catalogue (EWC)
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. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

#### References

Commission 2014/955/EU  
Directive 2008/98/EC

## SECTION 14: Transport information

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## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

14.6 Special precautions for user Not available.

14.7 Maritime 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

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

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
boric acid	Toxic to reproduction	Recommended	ED/69/2013	7/1/2015

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

Product/ingredient name	%	Designation [Usage]
Alusol XT FF	≥90	3
boric acid	≤5	30
decamethylcyclopentasiloxane	≤0.1	70
octamethylcyclotetrasiloxane	<0.01	70

Labelling

Restricted to professional users.

Other regulations

**REACH Status** The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.

**United States inventory (TSCA 8b)**

All components are active or exempted.

**Australia inventory (AIC)**

All components are listed or exempted.

**Canada inventory**

At least one component is not listed in DSL but all such components are listed in NDSL.

**China inventory (IECSC)**

All components are listed or exempted.

**Japan inventory (CSCL)**

All components are listed or exempted.

**Korea inventory (KECI)**

All components are listed or exempted.

**Philippines inventory (PICCS)**

At least one component is not listed.

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## SECTION 15: Regulatory information

<b>Taiwan Chemical Substances Inventory (TCSI)</b>	All components are listed or exempted.
<b>Explosive precursors</b>	Not applicable.
<b>Ozone depleting substances (1005/2009/EU)</b>	Not listed.
<b>Prior Informed Consent (PIC) (649/2012/EU)</b>	Not listed.
<b>Seveso Directive</b>	This product is not controlled under the Seveso Directive.
<b>15.2 Chemical safety assessment</b>	A Chemical Safety Assessment has been carried out for one or more of the substances within this mixture. A Chemical Safety Assessment has not been carried out for the mixture itself.

## SECTION 16: Other information

<b>Abbreviations and acronyms</b>	ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
	ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
	ATE = Acute Toxicity Estimate
	BCF = Bioconcentration Factor
	CAS = Chemical Abstracts Service
	CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
	CSA = Chemical Safety Assessment
	CSR = Chemical Safety Report
	DMEL = Derived Minimal Effect Level
	DNEL = Derived No Effect Level
	EINECS = European Inventory of Existing Commercial chemical Substances
	ES = Exposure Scenario
	EUH statement = CLP-specific Hazard statement
	EWC = European Waste Catalogue
	GHS = Globally Harmonized System of Classification and Labelling of Chemicals
	IATA = International Air Transport Association
	IBC = Intermediate Bulk Container
	IMDG = International Maritime Dangerous Goods
	LogPow = logarithm of the octanol/water partition coefficient
	MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
	OECD = Organisation for Economic Co-operation and Development
	PBT = Persistent, Bioaccumulative and Toxic
	PNEC = Predicted No Effect Concentration
	REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
	RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
	RRN = REACH Registration Number
	SADT = Self-Accelerating Decomposition Temperature
	SVHC = Substances of Very High Concern
	STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
	STOT-SE = Specific Target Organ Toxicity - Single Exposure
	TWA = Time weighted average
	UN = United Nations
	UVCB = Complex hydrocarbon substance
	VOC = Volatile Organic Compound
	vPvB = Very Persistent and Very Bioaccumulative
	Varies = may contain one or more of the following 64741-88-4 / RRN 01-2119488706-23, 64741-89-5 / RRN 01-2119487067-30, 64741-95-3 / RRN 01-2119487081-40, 64741-96-4 / RRN 01-2119483621-38, 64742-01-4 / RRN 01-2119488707-21, 64742-44-5 / RRN 01-2119985177-24, 64742-45-6, 64742-52-5 / RRN 01-2119467170-45, 64742-53-6 / RRN 01-2119480375-34, 64742-54-7 / RRN 01-2119484627-25, 64742-55-8 / RRN 01-2119487077-29, 64742-56-9 / RRN 01-2119480132-48, 64742-57-0 / RRN 01-2119489287-22, 64742-58-1, 64742-62-7 / RRN 01-2119480472-38, 64742-63-8, 64742-65-0 / RRN 01-2119471299-27, 64742-70-7 / RRN 01-2119487080-42, 72623-85-9 / RRN 01-2119555262-43, 72623-86-0 / RRN 01-2119474878-16, 72623-87-1 / RRN 01-2119474889-13

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

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## SECTION 16: Other information

Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Expert judgment
Repr. 1B, H360FD	Calculation method
Aquatic Chronic 3, H412	Calculation method

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

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1

### Europe

Full text of abbreviated H statements	H302	Harmful if swallowed.
	H304	May be fatal if swallowed and enters airways.
	H314	Causes severe skin burns and eye damage.
	H315	Causes skin irritation.
	H317	May cause an allergic skin reaction.
	H318	Causes serious eye damage.
	H331	Toxic if inhaled.
	H360FD	May damage fertility. May damage the unborn child.
	H361d	Suspected of damaging the unborn child.
	H372	Causes damage to organs through prolonged or repeated exposure.
	H400	Very toxic to aquatic life.
	H410	Very toxic to aquatic life with long lasting effects.
	H411	Toxic to aquatic life with long lasting effects.
	H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]	Acute Tox. 3	ACUTE TOXICITY - Category 3
	Acute Tox. 4	ACUTE TOXICITY - Category 4
	Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
	Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
	Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
	Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
	Asp. Tox. 1	ASPIRATION HAZARD - Category 1
	Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
	Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
	Repr. 2	REPRODUCTIVE TOXICITY - Category 2
	Skin Corr. 1	SKIN CORROSION/IRRITATION - Category 1
	Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
	Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
	Skin Sens. 1	SKIN SENSITISATION - Category 1
	STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1

### History

**Date of issue/ Date of revision** 06/03/2025.

**Date of previous issue** 23/04/2024.

**Prepared by** Product Stewardship

☛ Indicates information that has changed from previously issued version.

### Notice to reader

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## SECTION 16: Other information

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## **SECTION 16: Other information**



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