# 2-Methylpropan-2-ol

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<table>
<thead>
<tr>
<th>1.1</th>
<th>Product identifier:</th>
<th>2-methylpropan-2-ol</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAS:</td>
<td>75-65-0</td>
</tr>
<tr>
<td></td>
<td>EC:</td>
<td>200-889-7</td>
</tr>
<tr>
<td></td>
<td>Index:</td>
<td>603-005-00-1</td>
</tr>
<tr>
<td></td>
<td>REACH:</td>
<td>01-211944321-51-XXX</td>
</tr>
<tr>
<td></td>
<td>Formula:</td>
<td>((\text{CH}_3)_2\text{CH.CH}_2\text{OH})</td>
</tr>
<tr>
<td></td>
<td>Molecular weight:</td>
<td>74.12</td>
</tr>
</tbody>
</table>

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

- **Relevant uses:** Chemical sample for use in laboratories. For professional user/industrial user only.
- **Uses advised against:** All uses not specified in this section or in section 7.3

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

Scientific & Chemical Supplies Limited  
Carlton House, Livingstone Road  
WV14 0QZ Bilston - England  
Phone.: +44 (0) 1902 402402 - Fax: +44 (0) 1902 402343  
customerservices@scichem.com  
www.scichem.com

### 1.4 Emergency telephone number:

+44 (0) 7919 258 784

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture:

**CLP Regulation (EC) No 1272/2008:**

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

- Acute Tox. 4: Acute inhalation toxicity, Category 4, H332
- Eye Irrit. 2: Eye irritation, Category 2, H319
- Flam. Liq. 2: Flammable liquids, Category 2, H225
- STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

### 2.2 Label elements:

**CLP Regulation (EC) No 1272/2008:**

- Danger

**Hazard statements:**

- Acute Tox. 4: H332 - Harmful if inhaled
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 2: H225 - Highly flammable liquid and vapour
- STOT SE 3: H335 - May cause respiratory irritation

**Precautionary statements:**

- P210: Keep away from heat/sparks/open flames/hot surfaces. — No smoking
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P370+P378: In case of fire: Use ABC powder extinguisher to extinguish
- P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively

**Changes with regards to the previous version**

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substance:
Chemical description: Alcohols

Components:
In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 75-65-0</td>
<td>ATP ATP01 2-methylpropan-2-ol</td>
<td>80 - &lt;100 %</td>
</tr>
<tr>
<td>EC: 203-859-7</td>
<td>Regulation 1272/2008 Acute Tox. 4: H332; Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H335 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

Index:
REACH: 603-005-00-1
REACH01-211944321-51-

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

3.2 Mixture:
Non-applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:
In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters, …), seek medical advice with this Safety data Sheet.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
In case of consumption, seek immediate medical assistance showing the SDS for the product.

4.2 Most important symptoms and effects, both acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:
Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:
If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂).

IT IS RECOMMENDED NOT to use tap water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, …) in accordance with Directive 89/654/EC.

Additional provisions:
Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.
SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and material for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
B. - Technical recommendations for the prevention of fires and explosions
Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,…) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 94/9/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137 / The Dangerous Substances and Explosive Atmospheres Regulations 2002, 2002 No. 2776). Consult section 10 for conditions and materials that should be avoided.
C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D. - Technical recommendations to prevent environmental risks

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Store in a cool, dry, well-ventilated location
B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace (EH40/2005 Workplace exposure limits):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-methylpropan-2-ol</td>
<td>308 mg/m³</td>
</tr>
<tr>
<td>CAS: 75-65-0       EC: 200-889-7</td>
<td>100 ppm (WEL) 150 ppm (DNEL)</td>
</tr>
</tbody>
</table>

- CONTINUED ON NEXT PAGE -
Non-applicable

DNEL (General population):
Non-applicable

PNEC:

<table>
<thead>
<tr>
<th>Identification</th>
<th>STP</th>
<th>Fresh water</th>
<th>6.64 mg/L</th>
<th>Soil</th>
<th>Marine water</th>
<th>0.66 mg/L</th>
<th>Intermittent</th>
<th>Sediment (Fresh water)</th>
<th>5.8 mg/kg</th>
<th>Oral</th>
<th>Sediment (Marine water)</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-methylpropan-2-ol</td>
<td>690 mg/L</td>
<td>1 mg/kg</td>
<td>9.33 mg/L</td>
<td>8870000 g/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls:

A. General security and hygiene measures in the work place

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B. Respiratory protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Labelling</th>
<th>CEN Standard</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory respiratory tract protection</td>
<td>Filter mask for gases and vapours</td>
<td>CAT III</td>
<td>EN 405:2001+A1:2009</td>
<td>Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.</td>
</tr>
</tbody>
</table>

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Labelling</th>
<th>CEN Standard</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>NON-disposable chemical protective gloves (NBR), Breakthrough Time 480 min, thickness 0.4 mm</td>
<td>CAT III</td>
<td>EN 374-1:2003, EN 374-3:2003/AC:2006, EN 420:2003+A1:2009</td>
<td>The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.</td>
</tr>
</tbody>
</table>

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Labelling</th>
<th>CEN Standard</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>CAT II</td>
<td>EN 166:2001, EN ISO 4007:2012</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing.</td>
</tr>
</tbody>
</table>

E. Body protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Labelling</th>
<th>CEN Standard</th>
<th>Remarks</th>
</tr>
</thead>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:
With regard to Directive 2010/75/EU, this product has the following characteristics:

<table>
<thead>
<tr>
<th>V.O.C. (Supply)</th>
<th>100 % weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>V.O.C. density at 20 ºC</td>
<td>787.71 kg/m³ (787.71 g/L)</td>
</tr>
<tr>
<td>Average carbon number</td>
<td>4</td>
</tr>
<tr>
<td>Average molecular weight</td>
<td>74.1 g/mol</td>
</tr>
</tbody>
</table>

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
Physical state at 20 ºC: Liquid
Appearance: Not available
Colour: Colourless
Odour: Characteristic
Odour threshold: Non-applicable *

**Vapour density at 20 ºC:** Non-applicable *

**Boiling point at atmospheric pressure:** 82 ºC

**Vapour pressure at 20 ºC:** 3989 Pa

**Vapour pressure at 50 ºC:** 178.3 (23.77 kPa)

**Evaporation rate at 20 ºC:** Non-applicable *

**Product description:**
Density at 20 ºC: 787.7 kg/m³
Relative density at 20 ºC: 0.788
Dynamic viscosity at 20 ºC: 5.33 cP
Kinematic viscosity at 20 ºC: 6.77 cSt
Kinematic viscosity at 40 ºC: Non-applicable *
Concentration: Non-applicable *
pH: Non-applicable *
Vapour density at 20 ºC: Non-applicable *
Partition coefficient n-octanol/water 20 ºC: Non-applicable *
Solubility in water at 20 ºC: Non-applicable *
Solubility properties: Miscible
Decomposition temperature: Non-applicable *
Melting point/freezing point: 25 ºC
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>11 °C</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>470 °C</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>2.4 % Volume</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>8 % Volume</td>
</tr>
<tr>
<td>Explosive</td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

9.2 Other information:
- Surface tension at 20 ºC: Non-applicable *
- Refraction index: Non-applicable *
*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Risk of combustion</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

C.- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces eye damage after contact.

D.- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E.- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F.- Specific target organ toxicity (STOT) - single exposure:
Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G.- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H.- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-methylpropan-2-ol</td>
<td>LD50 oral 3500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 75-65-0</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td>EC: 200-889-7</td>
<td>LC50 inhalation 11 mg/L (4 h) (ATEi)</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-methylpropan-2-ol</td>
<td>LC50 961 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 75-65-0</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC: 200-889-7</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Henry</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-methylpropan-2-ol</td>
<td>Koc Non-applicable</td>
<td></td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: 75-65-0</td>
<td>Conclusion Non-applicable</td>
<td>Dry soil</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>EC: 200-889-7</td>
<td>Surface tension 2.111E-2 N/m (25 ºC)</td>
<td>Moist soil</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Date of compilation: 24/06/2014  Revised: 17/04/2019  Version: 4 (Replaced 3)  Page 7/10
### SECTION 12: ECOLOGICAL INFORMATION (continued)

Product fails to meet PBT/vPvB criteria

#### 12.6 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Waste class (Regulation (EU) No 1357/2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 05 06*</td>
<td>laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals</td>
<td>Dangerous</td>
</tr>
</tbody>
</table>

**Type of waste (Regulation (EU) No 1357/2014):**

HP3 Flammable, HP4 Irritant — skin irritation and eye damage, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC, The Waste Regulations 2011, 2011 No. 988). As under 15 01 (2014/955/EU) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

**Regulations related to waste management:**

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated.


### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to ADR 2017 and RID 2017:

- **14.1 UN number:** UN1120
- **14.2 UN proper shipping name:** BUTANOLS
- **14.3 Transport hazard class(es):** 3
  - **Labels:** 3
- **14.4 Packing group:** II
- **14.5 Environmental hazards:** No
- **14.6 Special precautions for use**
  - Special regulations: Non-applicable
  - Tunnel restriction code: D/E
  - Physico-Chemical properties: see section 9
  - Limited quantities: 1 L
- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Non-applicable

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN1120
14.2 UN proper shipping name: BUTANOLS
14.3 Transport hazard class(es): 3
Labels: 3
14.4 Packing group: II
14.5 Environmental hazards: No
14.6 Special precautions for user
   Special regulations: Non-applicable
   EmS Codes: F-E, S-D
   Physico-Chemical properties: see section 9
   Limited quantities: 1 L
   Segregation group: Non-applicable
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2018:

14.1 UN number: UN1120
14.2 UN proper shipping name: BUTANOLS
14.3 Transport hazard class(es): 3
Labels: 3
14.4 Packing group: II
14.5 Environmental hazards: No
14.6 Special precautions for user
   Physico-Chemical properties: see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:
Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable
Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable
Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable
Article 95, REGULATION (EU) No 528/2012: Non-applicable
REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Lower-tier requirements</th>
<th>Upper-tier requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>P5c</td>
<td>FLAMMABLE LIQUIDS</td>
<td>5000</td>
<td>50000</td>
</tr>
</tbody>
</table>

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Relevant instructions for use:
(tert Butyl Alcohol)

Other legislation:

- CONTINUED ON NEXT PAGE -
### SECTION 15: REGULATORY INFORMATION (continued)

According to 1907/2006/EC (REACH), 2015/830/EU

- The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (CDG 2009), SI 2009 No 1348
- The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2011, 2011 No. 1885
- Control of Substances Hazardous to Health Regulations 2002 (as amended)
- EH40/2005 Workplace exposure limits
- The Waste Regulations 2011, 2011 No. 988

#### 15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

### SECTION 16: OTHER INFORMATION

#### Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830)

#### Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks:

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):
- Precautionary statements

#### Texts of the legislative phrases mentioned in section 2:

- H225: Highly flammable liquid and vapour
- H332: Harmful if inhaled
- H335: May cause respiratory irritation
- H319: Causes serious eye irritation

#### Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:
- Acute Tox. 4: H332 - Harmful if inhaled
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 2: H225 - Highly flammable liquid and vapour
- STOT SE 3: H335 - May cause respiratory irritation

#### Advice related to training:

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

#### Principal bibliographical sources:

http://echa.europa.eu
http://eur-lex.europa.eu

#### Abbreviations and acronyms:

- ADR: European agreement concerning the international carriage of dangerous goods by road
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- LC50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. The information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -

Date of compilation: 24/06/2014  
Revised: 17/04/2019  
Version: 4 (Replaced 3)