



# Methanol

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Revision date: 09/03/2022 Date of Issue: 16/02/2015

Version: 1.0

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

#### 1.1. Product Identifier

Product Form	: Substance
Product Name	: Methanol
Chemical Name	: Aliphatic Alcohol
CAS-No.	: 67-56-1
Formula	: CH <sub>3</sub> OH
Synonyms	: Carbinol, Columbian Spirits, Methyl Alcohol, Pyrolygneous Spirits, Wood Alcohol, Methylol, Wood Naptha, Wood Spirits, Manhattan Spirits, Pyroxylic Spirits, Colonial Spirits, Methyl Hydroxide, Monohydroxymethane

#### 1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

##### 1.2.1. Relevant Identified Uses

Use of the Substance/Mixture : Solvent, Fuel, Feedstock

##### 1.2.2. Uses Advised Against

No additional information available

#### 1.3. Details of the Supplier of the Safety Data Sheet

##### Company

Atlantic Methanol Production Company LLC  
Ugland House, P.O. Box 309  
Georgetown, Grand Cayman  
Cayman Islands, British West Indies  
[www.atlanticmethanol.com](http://www.atlanticmethanol.com)

#### 1.4. Emergency Telephone Number

Emergency Number : 1-800-424-9300 CHEMTREC (United States, Canada, Puerto Rico, Virgin Islands) 1-703-527-3887 CHEMTREC (International and Maritime) 00 32 3 575 55 55 SGS EMERGENCY RESPONSE (24/7, English and Spanish) 1-713-328-1340 (land line via USA) Atlantic Methanol Production Company LLC (Emergency Contact for Malabo, Equatorial Guinea, West Africa)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the Substance or Mixture

##### Classification According to Regulation (EC) No. 1272/2008

Flam. Liq. 2	H225
Acute Tox. 3 (Oral)	H301
Acute Tox. 3 (Dermal)	H311
Acute Tox. 3 (Inhalation:vapour)	H331
STOT SE 1	H370

Full text of hazard classes, H- and EUH-statements: see section 16

#### 2.2. Label Elements

##### Labelling According to Regulation (EC) No. 1272/2008 [CLP]

##### Hazard Pictograms (CLP)



##### Signal Word (CLP)

: Danger

##### Hazard Statements (CLP)

: H225 - Highly flammable liquid and vapour.  
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled  
H370 - Causes damage to organs (optic nerve, central nervous system).

##### Precautionary Statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground and bond container and receiving equipment.  
P241 - Use explosion-proof electrical/ventilating/lighting equipment.  
P242 - Use non-sparking tools.  
P243 - Take action to prevent static discharges.

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P260 - Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P308+P311 - IF exposed or concerned: Call a POISON CENTER or doctor.  
P311 - Call a POISON CENTER or doctor.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P330 - Rinse mouth.  
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.  
P370+P378 - In case of fire: Use media other than water to extinguish.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other Hazards

**Other Hazards Not Contributing to the Classification** : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, annex XIII

The substance/mixture does not contain substance(s) at a concentration equal to or greater than 0,1% by weight that are present in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Name : Methanol  
CAS-No. : 67-56-1

Name	Product Identifier	%	Classification According to Regulation (EC) No. 1272/2008
Methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X	99 – 100	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370

#### Specific Concentration Limits:

Name	Product Identifier	Specific Concentration Limits
Methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X	( 3 ≤C < 10) STOT SE 2, H371 ( 10 ≤C < 100) STOT SE 1, H370

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

**First-Aid Measures General** : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

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- First-Aid Measures After Inhalation** : First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Keep at rest and in a position comfortable for breathing. Seek immediate medical attention. Immediately call a poison center or doctor/physician.
- First-Aid Measures After Skin Contact** : Immediately remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. Immediately call a poison center or doctor/physician.
- First-Aid Measures After Eye Contact** : Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- First-Aid Measures After Ingestion** : Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
- 4.2. Most Important Symptoms and Effects Both Acute and Delayed**
- Symptoms/Effects** : Toxic if swallowed, in contact with skin or if inhaled. Causes damage to organs (optic nerve, central nervous system).
- Symptoms/Effects After Inhalation** : Toxic if inhaled. Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death. Symptoms may include headache, drowsiness, dizziness, nausea, vomiting, visual disturbance, and optic nerve damage.
- Symptoms/Effects After Skin Contact** : This material is toxic in small amounts through skin contact, and can cause adverse health effects or death. This material may be absorbed through the skin and eyes. Symptoms may include redness, dry skin, dermatitis, and defatting of the skin.
- Symptoms/Effects After Eye Contact** : May cause eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.
- Symptoms/Effects After Ingestion** : Toxic if swallowed. Symptoms may include headache, drowsiness, dizziness, nausea, visual disturbance, optic nerve damage (blindness), abdominal pain, shortness of breath, vomiting, convulsions, and unconsciousness. This material is toxic in small amounts orally, and can cause adverse health effects or death.
- Chronic Symptoms** : Causes damage to organs(optic nerve, central nervous system). Methanol, when ingested, may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible). If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing Media

- Suitable Extinguishing Media** : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>). Water may be ineffective but water should be used to keep fire-exposed container cool.
- Unsuitable Extinguishing Media** : Methanol-water mixtures containing as little as 21% methanol by volume (25% by weight) are also flammable liquids. Do not use a heavy water stream. A heavy water stream may spread burning liquid.

### 5.2. Special Hazards Arising From the Substance or Mixture

- Fire Hazard** : Highly flammable liquid and vapour. Alcohols burn with a pale blue flame that is difficult to see under normal lighting conditions.
- Explosion Hazard** : May form flammable or explosive vapour-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
- Reactivity** : Reacts violently with strong oxidisers. Increased risk of fire or explosion.
- Hazardous Combustion Products** : Carbon oxides (CO, CO<sub>2</sub>). Formaldehyde.

### 5.3. Advice for Firefighters

- Precautionary Measures Fire** : Exercise caution when fighting any chemical fire. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours.
- Firefighting Instructions** : Do not breath fumes from fires or vapors from decomposition. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Closed containers exposed to heat may explode. Do not allow run-off from fire-fighting to enter drains or water courses.

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**Protection During Firefighting** : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures** : Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing. Handle in accordance with good industrial hygiene and safety practice. Use special care to avoid static electric charges. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment** : Use appropriate personal protective equipment (PPE).

**Emergency Procedures** : Evacuate unnecessary personnel. Evacuate unnecessary personnel. Stop leak if safe to do so.

#### 6.1.2. For Emergency Responders

**Protective Equipment** : Equip cleanup crew with proper protection.

**Emergency Procedures** : Upon arrival at the scene, a first responder is expected to recognise the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area. Eliminate ignition sources.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment** : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Ventilate area.

**Methods for Cleaning Up** : Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Transfer spilled material to a suitable container for disposal. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed** : Handle empty containers with care because residual vapours are flammable. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

**Precautions for Safe Handling** : Do not breathe vapors, mist, or spray. Do not get in eyes, on skin, or on clothing. Use only non-sparking tools. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Use appropriate personal protective equipment (PPE). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Handle empty containers with care because they may still present a hazard. Use only outdoors or in a well-ventilated area.

**Hygiene Measures** : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures** : Proper grounding procedures to avoid static electricity should be followed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Ensure adequate ventilation. Comply with applicable regulations.

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### Storage Conditions

: Store in accordance with applicable national storage class systems. Store in a cool, dry, well-ventilated place. Do not store near heat, flame, or other potential ignition sources. Do not store with oxidizers. Store in a cool, dry, well-ventilated place. Keep containers tightly closed. Do not store near heat, flame, or other potential ignition sources. Do not store with oxidizers. Do not store in unlabeled containers. Ground all equipment containing this material. All electrical equipment in areas where this material is stored or handled must meet all applicable requirements of the NFPA's National Electrical Code (NEC). Store and transport in accordance with all applicable laws. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials, Keep away from ignition sources (including static discharges). Store in a dry, cool place. Store locked up/in a secure area. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place.

### Incompatible Materials

: Alkali metals. Strong acids, strong bases, strong oxidisers.

### 7.3. Specific End Use(S)

Solvent, Fuel, Feedstock

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

Please see section 16 for the legal basis of limit value information in section 8.1, including the national legislation or provision which gives rise to a given limit.

Methanol (67-56-1)		
EU	IOELV TWA (Legal Basis:2019/1831 EU in accor. with 98/24/EC)	260 mg/m <sup>3</sup>
EU	IOELV TWA (Legal Basis:2019/1831 EU in accor. with 98/24/EC)	200 ppm
EU	Remark	Possibility of significant uptake through the skin
Austria	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	260 mg/m <sup>3</sup>
Austria	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	200 ppm
Austria	OEL STEL (Legal Basis:BGBl. II Nr. 254/2018)	1040 mg/m <sup>3</sup>
Austria	OEL STEL (Legal Basis:BGBl. II Nr. 254/2018)	800 ppm
Austria	OEL Chemical Category (Legal Basis:BGBl. II Nr. 254/2018)	Skin notation
Belgium	OEL TWA (Legal Basis:Royal Decree 21/01/2020)	266 mg/m <sup>3</sup>
Belgium	OEL TWA (Legal Basis:Royal Decree 21/01/2020)	200 ppm
Belgium	OEL STEL (Legal Basis:Royal Decree 21/01/2020)	333 mg/m <sup>3</sup>
Belgium	OEL STEL (Legal Basis:Royal Decree 21/01/2020)	250 ppm
Belgium	OEL Chemical Category (Legal Basis:Royal Decree 21/01/2020)	Skin, Skin notation
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	260 mg/m <sup>3</sup>
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	200 ppm
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	260 mg/m <sup>3</sup>
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	200 ppm
Croatia	OEL Chemical Category (Legal Basis:OG No. 91/2018)	Skin notation
Croatia	OEL BLV (Legal Basis:OG No. 91/2018)	7 mg/g creatinine Parameter: Methanol - Medium: urine - Sampling time: at the end of the work shift (calculated on the average Creatinine value of 1.2 g/L urine)
Cyprus	OEL TWA (Legal Basis:KDP 16/2019)	260 mg/m <sup>3</sup>
Cyprus	OEL TWA (Legal Basis:KDP 16/2019)	200 ppm
Cyprus	OEL Chemical Category (Legal Basis:KDP 16/2019)	Skin-potential for cutaneous absorption
Czech Republic	OEL TWA (Legal Basis:Reg. 41/2020)	250 mg/m <sup>3</sup>
Czech Republic	OEL Chemical Category (Legal Basis:Decree No. 107/2013)	Potential for cutaneous absorption
Czech Republic	OEL BLV (Legal Basis:Reg. 41/2020)	Parameter: Methanol - Medium: urine - Sampling time: end of shift 15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	260 mg/m <sup>3</sup>
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	200 ppm
Denmark	OEL Chemical Category (Legal Basis:BEK No. 698 of 28/05/2020)	Potential for cutaneous absorption
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	250 mg/m <sup>3</sup>
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	200 ppm
Estonia	OEL STEL (Legal Basis:Regulation No. 105)	350 mg/m <sup>3</sup>
Estonia	OEL STEL (Legal Basis:Regulation No. 105)	250 ppm
Estonia	OEL Chemical Category (Legal Basis:Regulation No. 105)	Skin notation

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<b>Methanol (67-56-1)</b>		
<b>Finland</b>	OEL TWA (Legal Basis:HTP-ARVOT 2020)	270 mg/m <sup>3</sup>
<b>Finland</b>	OEL TWA (Legal Basis:HTP-ARVOT 2020)	200 ppm
<b>Finland</b>	OEL STEL (Legal Basis:HTP-ARVOT 2020)	330 mg/m <sup>3</sup>
<b>Finland</b>	OEL STEL (Legal Basis:HTP-ARVOT 2020)	250 ppm
<b>Finland</b>	OEL Chemical Category (HTP-ARVOT 2020)	Potential for cutaneous absorption
<b>France</b>	OEL STEL (Legal Basis:INRS ED 984)	1300 mg/m <sup>3</sup>
<b>France</b>	OEL STEL (Legal Basis:INRS ED 984)	1000 ppm
<b>France</b>	OEL TWA (Legal Basis:INRS ED 984)	260 mg/m <sup>3</sup> (restrictive limit)
<b>France</b>	OEL TWA (Legal Basis:INRS ED 984)	200 ppm (restrictive limit)
<b>France</b>	OEL Chemical Category (Legal Basis:INRS ED 984)	Risk of cutaneous absorption
<b>France</b>	OEL BLV (Legal Basis:Decree 2009-1570)	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift (Background noise on non-exposed subjects)
<b>Germany</b>	OEL TWA (Legal Basis:TRGS 900)	130 mg/m <sup>3</sup> (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
<b>Germany</b>	OEL TWA (Legal Basis:TRGS 900)	100 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
<b>Germany</b>	OEL BLV (Legal Basis:TRGS 903)	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift 15 mg/l Parameter: Methanol - Medium: urine - Sampling time: for long-term exposures: at the end of the shift after several shifts
<b>Germany</b>	OEL Chemical Category (Legal Basis:TRGS 900)	Skin notation
<b>Gibraltar</b>	OEL TWA (Legal Basis:LN. 2018/181)	260 mg/m <sup>3</sup>
<b>Gibraltar</b>	OEL TWA (Legal Basis:LN. 2018/181)	200 ppm
<b>Gibraltar</b>	OEL Chemical Category (Legal Basis:LN. 2018/181)	Skin notation
<b>Greece</b>	OEL TWA (Legal Basis:PWHSSE)	260 mg/m <sup>3</sup>
<b>Greece</b>	OEL TWA (Legal Basis:PWHSSE)	200 ppm
<b>Greece</b>	OEL STEL (Legal Basis:PWHSSE)	325 mg/m <sup>3</sup>
<b>Greece</b>	OEL STEL (Legal Basis:PWHSSE)	250 ppm
<b>Greece</b>	OEL Chemical Category (Legal Basis:PWHSSE)	skin - potential for cutaneous absorption
<b>Hungary</b>	OEL TWA (Legal Basis:Decree No. 05/2020)	260 mg/m <sup>3</sup>
<b>Hungary</b>	OEL Chemical Category (Legal Basis:Decree No. 05/2020)	Potential for cutaneous absorption
<b>Ireland</b>	OEL TWA (Legal Basis:2020 COP)	260 mg/m <sup>3</sup>
<b>Ireland</b>	OEL TWA (Legal Basis:2020 COP)	200 ppm
<b>Ireland</b>	OEL STEL (Legal Basis:2020 COP)	780 mg/m <sup>3</sup> (calculated)
<b>Ireland</b>	OEL STEL (Legal Basis:2020 COP)	600 ppm (calculated)
<b>Ireland</b>	OEL Chemical Category (Legal Basis:Decree No. 05/2020)	Potential for cutaneous absorption
<b>USA ACGIH</b>	OEL TWA (Legal Basis:IMDFN1)	200 ppm
<b>USA ACGIH</b>	OEL STEL (Legal Basis:IMDFN1)	250 ppm
<b>USA ACGIH</b>	BEI Value (Legal Basis:IMDFN1)	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift (background, nonspecific)
<b>Italy</b>	OEL TWA (Legal Basis:Decree 81)	260 mg/m <sup>3</sup>
<b>Italy</b>	OEL TWA (Legal Basis:Decree 81)	200 ppm
<b>Italy</b>	OEL Chemical Category (Legal Basis:Decree 81)	skin - potential for cutaneous absorption
<b>Latvia</b>	OEL TWA (Legal Basis:Reg. No. 325)	260 mg/m <sup>3</sup>
<b>Latvia</b>	OEL TWA (Legal Basis:Reg. No. 325)	200 ppm
<b>Latvia</b>	OEL Chemical Category (Legal Basis:Reg. No. 325)	skin - potential for cutaneous exposure
<b>Lithuania</b>	OEL TWA (Legal Basis:HN 23:2011)	260 mg/m <sup>3</sup>
<b>Lithuania</b>	OEL TWA (Legal Basis:HN 23:2011)	200 ppm
<b>Lithuania</b>	OEL Chemical Category (Legal Basis:HN 23:2011)	Skin notation
<b>Luxembourg</b>	OEL TWA (Legal Basis:A-N 684)	260 mg/m <sup>3</sup>
<b>Luxembourg</b>	OEL TWA (Legal Basis:A-N 684)	200 ppm
<b>Luxembourg</b>	OEL Chemical Category (Legal Basis:A-N 684)	Possibility of significant uptake through the skin
<b>Malta</b>	OEL TWA (Legal Basis:MOHSAA Ch. 424)	260 mg/m <sup>3</sup>
<b>Malta</b>	OEL TWA (Legal Basis:MOHSAA Ch. 424)	200 ppm
<b>Malta</b>	OEL Chemical Category (Legal Basis:MOHSAA Ch. 424)	Possibility of significant uptake through the skin
<b>Netherlands</b>	OEL TWA (Legal Basis:OWCRLV)	133 mg/m <sup>3</sup>
<b>Netherlands</b>	OEL Chemical Category (Legal Basis:OWCRLV)	Skin notation
<b>Norway</b>	OEL TWA (Legal Basis:FOR-2020-04-06-695)	130 mg/m <sup>3</sup>

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Norway	OEL TWA (Legal Basis:FOR-2020-04-06-695)	100 ppm
Norway	OEL STEL (Legal Basis:FOR-2020-04-06-695)	162,5 mg/m <sup>3</sup> (value calculated)
Norway	OEL STEL (Legal Basis:FOR-2020-04-06-695)	150 ppm (value calculated)
Norway	OEL Chemical Category (Legal Basis:FOR-2020-04-06-695)	Skin notation
Poland	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	100 mg/m <sup>3</sup>
Poland	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	300 mg/m <sup>3</sup>
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	260 mg/m <sup>3</sup> (indicative limit value)
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	200 ppm (indicative limit value)
Portugal	OEL STEL (Legal Basis:Portuguese Norm NP 1796:2014)	250 ppm
Portugal	OEL Chemical Category (Legal Basis:Portuguese Norm NP 1796:2014)	skin - potential for cutaneous exposure indicative limit value
Romania	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	260 mg/m <sup>3</sup>
Romania	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	200 ppm
Romania	OEL Chemical Category (Legal Basis:Gov. Dec. No 1.218)	Skin notation
Romania	OEL BLV (Legal Basis:Gov. Dec. No 1.218)	6 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift
Slovakia	OEL TWA (Legal Basis:Gov. Decree 33/2018)	260 mg/m <sup>3</sup>
Slovakia	OEL TWA (Legal Basis:Gov. Decree 33/2018)	200 ppm
Slovakia	OEL Chemical Category (Legal Basis:Gov. Decree 33/2018)	Potential for cutaneous absorption
Slovakia	OEL BLV (Legal Basis:Gov. Decree 33/2018)	30 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of exposure or work shift 30 mg/l Parameter: Methanol - Medium: urine - Sampling time: after all work shifts (for long-term exposure)
Slovenia	OEL TWA (Legal Basis:No. 79/19)	260 mg/m <sup>3</sup>
Slovenia	OEL TWA (Legal Basis:No. 79/19)	200 ppm
Slovenia	OEL STEL (Legal Basis:No. 79/19)	1040 mg/m <sup>3</sup>
Slovenia	OEL STEL (Legal Basis:No. 79/19)	800 ppm
Slovenia	OEL Chemical Category (Legal Basis:No. 79/19)	Potential for cutaneous absorption
Spain	OEL TWA (Legal Basis:OELCAIS)	266 mg/m <sup>3</sup> (indicative limit value)
Spain	OEL TWA (Legal Basis:OELCAIS)	200 ppm (indicative limit value)
Spain	OEL Chemical Category (Legal Basis:OELCAIS)	skin - potential for cutaneous absorption
Spain	OEL BLV (Legal Basis:OELCAIS)	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift
Sweden	OEL TLV (Legal Basis:AFS 2018:1)	250 mg/m <sup>3</sup>
Sweden	OEL TLV (Legal Basis:AFS 2018:1)	200 ppm
Sweden	OEL STEL (Legal Basis:AFS 2018:1)	350 mg/m <sup>3</sup>
Sweden	OEL STEL (Legal Basis:AFS 2018:1)	250 ppm
Sweden	OEL Chemical Category (Legal Basis:AFS 2018:1)	Skin notation
Switzerland	OEL STEL (Legal Basis:OLVSNAIF)	520 mg/m <sup>3</sup>
Switzerland	OEL STEL (Legal Basis:OLVSNAIF)	400 ppm
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	260 mg/m <sup>3</sup>
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	200 ppm
Switzerland	OEL Chemical Category (Legal Basis:OLVSNAIF)	Skin notation
Switzerland	OEL BLV (Legal Basis:OLVSNAIF)	30 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures)

## 8.2. Exposure Controls

### Appropriate Engineering Controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide sufficient ventilation to keep vapors below permissible exposure limit. Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Gas detectors should be used when toxic gases may be released. Gas detectors should be used when flammable gases or vapours may be released. Ensure all national/local regulations are observed.

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**Personal Protective Equipment** : Full protective flameproof clothing. Protective goggles. Gloves. Insufficient ventilation: wear respiratory protection. Face shield. Personal protective equipment should be chosen in accordance with Regulation (EU) 2016/425, CEN standards, and in discussion with the supplier of the protective equipment.



**Materials for Protective Clothing** : Wear fire/flame resistant/retardant clothing. Chemically resistant materials and fabrics.

**Hand Protection** : Wear protective gloves.

**Eye Protection** : Chemical safety goggles.

**Skin and Body Protection** : Wear fireproof clothing. Wear suitable protective clothing.

**Respiratory Protection** : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Consumer Exposure Controls** : Do not eat, drink or smoke during use.

**Other Information** : When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Colour, Appearance	: Colorless
Colour	: No data available
Odour	: Faintly sweet pungent odor like ethyl alcohol
Odour Threshold	: No data available
pH	: 7,2
Evaporation Rate	: No data available
Melting Point	: -98 °C (-144,4 °F)
Freezing Point	: -98 °C (-144,4 °F)
Boiling Point	: 64 °C (147,2 °F) at atmospheric pressure
Flash Point	: 11 °C (51,8 °F)
Critical Temperature	: 240 °C (464 °F)
Auto-Ignition Temperature	: 464 °C (867,2 °F)
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour Pressure	: ≈ 128,24 mbar at 20 °C (68 °F)
Relative Vapour Density At 20 °C	: 1,11 at 15.6 °C (60 °F) (NOT RELATIVE)
Relative Density	: 0,792 at 20 °C (68 °F) (Water = 1)
Density	: 6,63 lb/gal (0.7945 kg per liter) at 15.6 °C (60 °F)
Solubility	: Water: 100%
Partition Coefficient n-Octanol/Water	: No data available
Viscosity	: No data available
Explosive Properties	: Lower explosive limits: 1% Upper explosive limits: 7%.
Oxidising Properties	: No data available
Explosive Limits	: Not available
Particle Aspect Ratio	: Not applicable
Particle Aggregation State	: Not applicable
Particle Agglomeration State	: Not applicable
Particle Specific Surface Area	: Not applicable
Particle Dustiness	: Not applicable
Critical Pressure	: 1,142 psia (77.77 bar)
Molecular Weight	: 32.04
% Volatile by Volume	: 100%

### 9.2. Other Information

**Critical Temperature** : 240 °C



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VOC content : 100 %  
VOC content : 100 %

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1. Reactivity

Reacts violently with strong oxidisers. Increased risk of fire or explosion.

#### 10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7). Extremely flammable liquid and vapour. May form flammable or explosive vapour-air mixture.

#### 10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to Avoid

Ignition sources. Incompatible materials. Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

#### 10.5. Incompatible Materials

Alkali metals. Strong acids, strong bases, strong oxidisers.

#### 10.6. Hazardous Decomposition Products

None expected under normal conditions of use.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1. Information On Hazard Classes As Defined In Regulation (Ec) No 1272/2008

Likely Routes of Exposure : Dermal, Inhalation  
Acute Toxicity (Oral) : Toxic if swallowed.  
Acute Toxicity (Dermal) : Toxic in contact with skin.  
Acute Toxicity (Inhalation) : Toxic if inhaled.

Methanol (67-56-1)	
LD50 Oral	1400 mg/kg
LD50 Dermal Rabbit	15840 mg/kg
LC50 Inhalation Rat	22500 ppm (Exposure time: 8 h)
ATE CLP (oral)	100,00 mg/kg bodyweight
ATE CLP (dermal)	300,00 mg/kg bodyweight
ATE CLP (gases)	700,00 ppmv/4h
ATE CLP (vapours)	3,00 mg/l/4h
ATE CLP (dust,mist)	0,50 mg/l/4h

**Skin Corrosion/Irritation** : Not classified (Based on available data, the classification criteria are not met)  
pH: 7,2

**Eye Damage/Irritation** : Not classified (Based on available data, the classification criteria are not met)  
pH: 7,2

**Respiratory or Skin Sensitization** : Not classified (Based on available data, the classification criteria are not met)

**Germ Cell Mutagenicity** : Not classified (Based on available data, the classification criteria are not met)

**Carcinogenicity** : Not classified (Based on available data, the classification criteria are not met)

**Reproductive Toxicity** : Not classified (Based on available data, the classification criteria are not met)

**Specific Target Organ Toxicity (Single Exposure)** : Causes damage to organs (visual organs, central nervous system).  
Causes damage to organs (Optic nerve, central nervous system)

**Specific Target Organ Toxicity (Repeated Exposure)** : Not classified (Based on available data, the classification criteria are not met)

**Aspiration Hazard** : Not classified (Based on available data, the classification criteria are not met)

**Symptoms/Injuries After Inhalation** : Toxic if inhaled. Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death. Symptoms may include headache, drowsiness, dizziness, nausea, vomiting, visual disturbance, and optic nerve damage.

**Symptoms/Injuries After Skin Contact** : This material is toxic in small amounts through skin contact, and can cause adverse health effects or death. This material may be absorbed through the skin and eyes. Symptoms may include redness, dry skin, dermatitis, and defatting of the skin.

**Symptoms/Injuries After Eye Contact** : May cause eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.

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- Symptoms/Injuries After Ingestion** : Toxic if swallowed. Symptoms may include headache, drowsiness, dizziness, nausea, visual disturbance, optic nerve damage (blindness), abdominal pain, shortness of breath, vomiting, convulsions, and unconsciousness. This material is toxic in small amounts orally, and can cause adverse health effects or death.
- Chronic Symptoms** : Causes damage to organs. Methanol, when ingested, may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death.

### 11.2. Information On Other Hazards

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to humans as it does not meet the criteria set out in section A of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

- Ecology - Water** : Readily biodegrades. Evaporates to moderate extent. Does not bioaccumulate.
- Hazardous To The Aquatic Environment, Short-Term (Acute)** : Not classified (Based on available data, the classification criteria are not met)
- Hazardous To The Aquatic Environment, Long-Term (Chronic)** : Not classified (Based on available data, the classification criteria are not met)

Methanol (67-56-1)	
LC50 - Fish [1]	28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	1340 mg/l
LC50 - Fish [2]	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

### 12.2. Persistence and Degradability

Methanol (67-56-1)	
Persistence and Degradability	Not established.

### 12.3. Bioaccumulative Potential

Methanol (67-56-1)	
Bioaccumulative Potential	Not established.
Methanol (67-56-1)	
BCF Fish 1	< 10
Partition coefficient n-octanol/water (Log Pow)	-0,77

### 12.4. Mobility in Soil

No additional information available

### 12.5. Results of PBT and vPvB Assessment

Does not contain any PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XVIII

### 12.6. Endocrine Disrupting Properties

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

### 12.7. Other Adverse Effects

- Other Information** : Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste Treatment Methods

- Sewage Disposal Recommendations** : Do not empty into drains; dispose of this material and its container in a safe way.
- Product/Packaging Disposal Recommendations** : Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.
- Additional Information** : Handle empty containers with care because residual vapours are flammable.
- Ecology - Waste Materials** : Avoid release to the environment.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued. In accordance with ADR / RID / IMDG / IATA / ADN

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ADR	IMDG	IATA	ADN	RID
<b>14.1. UN Number or ID Number</b>				
UN 1230	UN 1230	UN 1230	UN 1230	UN 1230
<b>14.2. UN Proper Shipping Name</b>				
METHANOL	METHANOL	METHANOL	METHANOL	METHANOL
<b>14.3. Transport Hazard Class(ES)</b>				
3 (6.1)	3 (6.1)	3 (6.1)	3 (6.1)	3 (6.1)
<b>14.4. Packing Group</b>				
II	II	II	II	II
<b>14.5. Environmental Hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No

### 14.6. Special Precautions For User

No additional information available

### 14.7. Maritime Transport in Bulk According to IMO instruments

Not applicable

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

#### 15.1.1. EU-Regulations

##### 15.1.1.1. REACH Annex XVII Information

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Methanol ; Methanol
3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	Methanol ; Methanol
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Methanol ; Methanol
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	Methanol ; Methanol
69. Methanol	Methanol

##### 15.1.1.2. REACH Candidate List Information

Methanol is not on the REACH Candidate List

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According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### 15.1.1.3. POP (2019/1021) - Persistent Organic Pollutants Information

Methanol is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

### 15.1.1.4. PIC Regulation EU (649/2012) - Export and Import of Hazardous Chemicals Information

Methanol is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

### 15.1.1.5. REACH Annex XIV Information

Methanol is not on the REACH Annex XIV List

### 15.1.1.6. Substances Depleting the Ozone layer (1005/2009) Information

No additional information available

### 15.1.1.7. EC Inventory Information

#### Methanol (67-56-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

### 15.1.1.8. Other Information

No additional information available

### 15.1.2. National Regulations

No additional information available

### 15.1.3. International Inventory Lists

#### Methanol (67-56-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

Subject to reporting requirements of United States SARA Section 313

Listed on EPA Hazardous Air Pollutant (HAPS)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Japanese Poisonous and Deleterious Substances Control Law

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the Japanese ISHL (Industrial Safety and Health Law)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemicals Inventory)

### 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

## SECTION 16: OTHER INFORMATION

**Date of Preparation or Latest Revision** : 09/03/2022

**Data Sources** : Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent adoption of GHS.

**Other Information** : According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

#### Full Text of H- and EUH-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H371	May cause damage to organs.
STOT SE 1	Specific target organ toxicity — single exposure, Category 1
STOT SE 2	Specific target organ toxicity — Single exposure, Category 2

**Classification and Procedure Used to Derive the Classification for Mixtures According to Regulation (EC) 1272/2008 [CLP]:**

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Flam. Liq. 2	On basis of test data
Acute Tox. 3 (Oral)	Calculation method
Acute Tox. 3 (Dermal)	Calculation method
Acute Tox. 3 (Inhalation:vapour)	Calculation method
STOT SE 1	Annex VII conversion

### Indication of Changes

Section	Change	Date Changed	Version
	Modified	06/02/2020	
	Modified	06/02/2020	

### Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists  
ADN – European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road  
ATE - Acute Toxicity Estimate  
BCF - Bioconcentration Factor  
BEI - Biological Exposure Indices (BEI)  
BOD – Biochemical Oxygen Demand  
CAS No. - Chemical Abstracts Service Number  
CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008  
COD – Chemical Oxygen Demand  
EC – European Community  
EC50 - Median Effective Concentration  
EEC – European Economic Community  
EINECS – European Inventory of Existing Commercial Chemical Substances  
EmS-No. (Fire) - IMDG Emergency Schedule Fire  
EmS-No. (Spillage) - IMDG Emergency Schedule Spillage  
EU – European Union  
ErC50 - EC50 in Terms of Reduction Growth Rate  
GHS – Globally Harmonized System of Classification and Labeling of Chemicals  
IARC - International Agency for Research on Cancer  
IATA - International Air Transport Association  
IBC Code - International Bulk Chemical Code  
IMDG - International Maritime Dangerous Goods  
IPRV - Ilgalaikio Poveikio Ribinis Dydis  
IOELV – Indicative Occupational Exposure Limit Value  
LC50 - Median Lethal Concentration  
LD50 - Median Lethal Dose  
LOAEL - Lowest Observed Adverse Effect Level  
LOEC - Lowest-Observed-Effect Concentration  
Log Koc - Soil Organic Carbon-water Partitioning Coefficient  
Log Kow - Octanol/water Partition Coefficient  
Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and water  
MAK – Maximum Workplace Concentration/Maximum Permissible Concentration  
MARPOL - International Convention for the Prevention of Pollution

NDS - Najwyższe Dopuszczalne Stezenie  
NDSch - Najwyższe Dopuszczalne Stezenie Chwilowe  
NDSP - Najwyższe Dopuszczalne Stezenie Pulapowe  
NOAEL - No-Observed Adverse Effect Level  
NOEC - No-Observed Effect Concentration  
NRD - Nevirsytinas Ribinis Dydis  
NTP – National Toxicology Program  
OEL - Occupational Exposure Limits  
PBT - Persistent, Bioaccumulative and Toxic  
PEL - Permissible Exposure Limit  
pH – Potential Hydrogen  
REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals  
RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail  
SADT - Self Accelerating Decomposition Temperature  
SDS - Safety Data Sheet  
STEL - Short Term Exposure Limit  
STOT - Specific Target Organ Toxicity  
TA-Luft - Technische Anleitung zur Reinhaltung der Luft  
TEL TRK – Technical Guidance Concentrations  
ThOD – Theoretical Oxygen Demand  
TLM - Median Tolerance Limit  
TLV - Threshold Limit Value  
TPRD - Trumpalaikio Poveikio Ribinis Dydis  
TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern  
TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine  
TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte  
TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte  
TSCA - Toxic Substances Control Act  
TWA - Time Weighted Average  
VOC – Volatile Organic Compounds  
VLA-EC - Valor Límite Ambiental Exposición de Corta Duración  
VLA-ED - Valor Límite Ambiental Exposición Diaria  
VLE – Valeur Limite D'exposition  
VME – Valeur Limite De Moyenne Exposition  
vPvB - Very Persistent and Very Bioaccumulative  
WEL – Workplace Exposure Limit  
WGK - Wassergefährdungsklasse

### Limit Value Legal Basis\*

\*Includes the below and any related regulations/provisions, and subsequent amendments

**EU - 2019/1831 EU in accor. with 98/24/EC** - Directive 2019/1831/EU of October 24, 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 2000/39/EC.

**EU - 2019/1243/EU, and 98/24/EC** - Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work and amendment Regulation (EU) 2019/1243.

**Austria - BGBl. II Nr. 254/2018** - Ordinance on Limit Values for Workplace Substances and on Carcinogens from the Federal Ministry of Economics and Labour, Published in 2003, Appendix 1: Substance List, Published through: Ministry of Economics and Labour of the Republic of Austria amended through the Government Gazette II (BGBl. II) No 119/2004 & BGBl. II No. 242/2006, BGBl. II No. 243/2007, lastly changed through BGBl. I Nr. 51/2011), BGBl. II Nr. 186/2015, BGBl. II Nr. 288/2017 amended by BGBl. II Nr. 254/2018.

**Austria - BLV BGBl. II Nr. 254/2018** - Ordinance on health monitoring at the workplace 2008, published through BGBl. II Nr. 224/2007 by Austria Minister for Labor and Social Affairs, Lastly changed through BGBl. II Nr. 254/2018

**Belgium - Royal Decree 21/01/2020** - Royal decree amending title 1 relating to chemical agents in Book VI of the code of well-being at work, with regard to

**Greece - PWHSE** - Occupational Exposure Limits - Protection of workers' health and safety from exposure to certain chemical substances during the workday, (latest amendment 82/2018) and Occupation Exposure Limits - Protection of workers' health and safety from exposure to certain carcinogenic and mutagenic chemical substances (latest amendment 26/2020), and Presidential Decree 212/2006 - Protection of workers that are exposed to asbestos.

**Hungary - Decree 05/2020** - 5/2020. (II. 6.) ITM decree on the protection of the health and safety of workers from the risks related to chemical agents

**Ireland - 2020 COP** - 2020 Code of Practice for the Chemical Agents Regulations, Schedule 1

**Italy - Decree 81** - Title IX, Annex XLIII and XXXVIII, Professional Exposure Limits and Annex XXXIX Mandatory Biological Limit Values and Health Monitoring, Article 1, Law 123 of August 3, 2007, Legislative Decree 81 of April 9, 2008, Last amended: January 2020

**Italy - IMDFN1** - Ministerial Decree of August 20, 1999 Final Note (1)

**Latvia - Reg. No. 325** - Cabinet of Ministers Regulation No. 325 - Labour Protection Requirements when Coming in Contact with Chemical Substances at Workplaces, Amended by Cabinet of Ministers Regulation No. 92, 163, 407 and No. 11.

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the list of limit values of exposure to chemical agents and title 2 relating to carcinogens, mutagens and reprotoxics of Book VI of the code of well-being at work (1)

### **Bulgaria - Reg. No. 13/10 -**

Regulation No. 13 of December 30, 2003 on the Protection of Workers from Hazards Related to Exposure to Chemical Agents at Work Labor Code, Annex No.1 Limit values of chemical agents in the air of the working environment, and Annex No 2 Biological limit values of chemical agents and their metabolites (bio markers of exposure) or bio markers of effect Amended by: 71/2006, 67/2007, 2/2012, 46/2015, 73/2018, 5/2020), and Regulation No.10 of September 26, 2003 on the Protection of Workers from the Risks Associated with Exposure to Carcinogens and Mutagens at Work Annex No.1 Occupational Exposure Limits, Amended by: 8/2004, 46/2015, 5/2020

**Croatia - OG No. 91/2018** - Regulation on the Protection of Workers from Exposure to Hazardous Chemicals at Work, the Limit Values of Exposure and the Biological Limit Values. Official Gazette No. 91 of October 12, 2018

**Cyprus - KDP 16/2019** - Government of Cyprus Cabinet of Ministers Regulation 268/2001 - Safety and Health in the Working Environment (Chemical Substances) Article 38, As amended by Regulation 16/2019 and Cabinet of Ministers Regulation 153/2001 - Safety and Health in the Working Environment (Chemical Substances-Carcinogens), as amended by Regulation 493/2004 - Safety and Health in the Working Environment (Chemical Substances - Carcinogens) AND Law 47(I) 2000 - Occupational Health and Safety (Asbestos), as amended by Decree 316/2006.

**Czech Republic - Reg. 41/2020** - Regulation 41/2020 amending Regulation 361/2007 of Coll. establishing Occupation Exposure Limits as amended

**Czech Republic - Decree No. 107/2013** - Decree No. 107/2013 Coll., amending Decree No. 432/2003 Coll., laying down the conditions for the application of the work into categories, limit values for the parameters of biological exposure tests, collection of biological material conditions for the implementation of biological exposure tests and requirements for reporting work with asbestos and biological agents

**Denmark - BEK No. 698 of 28/05/2020** - Order on Limit Values for Substances and Materials, The Statutory Order No. 507 of May 17, 2011, Appendix 1 - Limits for air pollution, etc. and Appendix 3 - Biological Exposure Values, Amended by: No. 986 of October 11, 2012, No. 655 of May 31, 2018, No. 1458 December 13, 2019, No. 698 of May 28, 2020

**Estonia - Regulation No. 105** - Health and Safety Requirements for the Use of Dangerous Chemicals and Materials Containing Them and Occupational Exposure Limits to Chemical Agents Government of the Republic, Regulation No. 105 of 20 March 2001, Amended 17 October 2019, and 17 January, 2020.

**Finland - HTP-ARVOT 2020** - Concentrations Known to be Hazardous, 654/2020 OEL values 2020 Publications of Ministry of Social Affairs and Health 2020:24 Annexes1, 2 and 3.

**France - INRS ED 984** - Occupational Exposure Limit Values to Chemical Agents in France Published 2016 by the INRS National Institute of Research and Safety Health and safety of work, revised, updated by: Decree 2016-344, JORF No 0119, and Decree 2019-1487.

**France - Decree 2009-1570** - Decree 2009-1570 of December 15, 2009, relative to the control of chemical risk on workplaces.

**Germany - TRGS 900** - Occupational Exposure Limits, Technical Rules for Dangerous Substances, latest amendment March, 2020

**Germany - TRGS 903** - Biological Threshold Limits (BGW-Values), Technical Rules for Dangerous Substances, latest amendment March, 2020

**Gibraltar - LN. 2018/131** - Factories (Control of Chemical Agents at Work) Regulations 2003 LN. 2003/035, amended by LN. 2008/035, LN. 2008/050, LN. 2012/021, LN. 2015/143, LN. 2018/181.  
EU GHS SDS (2020/878)

**Lithuania - HN 23:2011** - Lithuanian Hygiene Standard HN 23:2011 Occupational Exposure Limit Values, Amended by Order V-695/A1-272.

**Luxembourg - A-N 684** - Grand-Ducal Regulation of 20 July 2018 amending the Grand-Ducal Regulation of 14 November 2016 concerning the protection of the safety and health of employees against the risks associated with chemical agents in the workplace. Official journal of the Grand-Duke of Luxembourg, A-N°684 of 2018

**Malta - MOSHAA Ch. 424** - Malta Occupational Health and Safety Authority Act: Chapter 424 as amended by: Legal Notice 353, 53, 198, and 57.

**Netherlands- OWCRLV** - Occupational Working Conditions Regulation, Limit Values for substances harmful to health, Annex XVIII, Updated from August 1, 2020.

**Norway - FOR-2020-04-060695** - Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents, FOR-2011-12-06-1358, Updated by: FOR-2020-04-06-695, FOR-2020-03-23-402, FOR-2018-12-20-2186, FOR-2018-08-21-1255, FOR-2017-12-20-2353.

**Poland - Dz. U. 2020 Nr. 61** - Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the Highest Allowable Concentrations and Intensities of Factors Harmful to Health in the Work Environment Dz.U. 2018 Nr. 1286 of June 12, 2018, Annex 1 - List of values of the highest permissible chemical concentrations and dust factors harmful to health in the work environment, amended by: Dz. U. 2020 Nr. 61.

**Portugal - Portuguese Norm NP 1796:2014** - Occupational exposure limits and biological exposure indices to chemical agents. Table 1 - Occupational exposure limits and biological exposure indices to chemical agents (OELs), Law Decree 35/2020.

**Romania - Gov. Dec. No 1.218** - Governmental Decision No. 1.218 from 06/09/2006 on the minimum health and safety requirements for protection of workers from the risks related to exposure to chemical agents, Annex No. 1 Mandatory National Occupational Exposure Limit Values for Chemical Agents. Amended by Decision no. 157, 584, 359, and 1.

**Slovakia - Gov. Decree 33/2018** - Government Decree of Slovak Republic 33/2018 on January 17, 2018 amending Government Decree of Slovak Republic 355/2006 about protection of health of employees when working with chemical agents

**Slovenia - No. 79/19** - Regulation for protection of workers against risks related to carcinogenic or mutagenic substances exposure. Annex III - Classification and binding levels of carcinogenic or mutagenic substances for occupational exposure. The Official Journal of the Republic of Slovenia, No. 101/2005. Amended by 38/15, 79/19. Regulation for protection of workers against risks related to exposure to chemical substances at the workplace. Republic of Slovenia, No. 100/2001 . Annex I - List of Binding Occupational Exposure Limit Values. Amended by 39/05, 53/07, 102/10, 38/15, 78/18, 78/19

**Spain - AFS 2018:1** - NATIONAL INSTITUTE FOR HEALTH AND SAFETY AT WORK. Occupational exposure limits for chemical agents in Spain. Tables 1 and 3. Latest edition Feb. 2019

**Sweden - AFS 2018:1** - Statute Book of the Swedish Work Environment Authority, AFS 2018:1  
The Swedish Work Environment Authority's Ordinance and General Guidance on Hygienic Limit Values

**Switzerland - OLVSNAlF** - Occupational Limit Values 2020 Swiss National Accident Insurance Fund. List of Biological Limit Values (BAT-Werte) and List of MAK Values.

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*