according to Regulation No. 1907/2006 of the European Parliament and of the Council, as subsequently amended

# **KRYSTAL** For windows

Date of revision: **27. 01. 2025** Version: **1.0** 

Replaced version from: 19. 04. 2022

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

## 1.1. Product identifier

#### **Product Name**

# **KRYSTAL For windows**

#### UFI code

UFI: 5S80-E0WV-H00N-9UM2

#### Product code

Are not.

# Mixture description

An aqueous solution.

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

# Identified uses

A liquid concentrated product designed for both dilution and direct use.

Consumer use.

#### Uses advised against

Not known. It is recommended to use it only for the intended use. Other uses may expose users to unpredictable risks.

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

#### CORMEN s.r.o.

Věchnov 73

593 01

Czech Republic

Tel.: +420 566 550 961 Fax: +420 566 551 822

e-mail address for a competent person responsible for the SDS: info@cormen.cz

# 1.4. Emergency telephone number

112 (General emergency phone).

# **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

The mixture is classified as hazardous according to regulation 1272/2008/EC.

### Classification according to 1272/2008/EC

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# Flam. Liq. 3; H226

Full text of classifications and H-phrases: see section 16.

The most important adverse physical, human health and environmental effects

Flammable liquid and vapour.

#### 2.2. Label elements

### Hazard pictograms



# Signal word

Warning.

# Substances of the mixture to be placed on the label

Are not.

#### Hazard statements

H226 Flammable liquid and vapour.

# Precautionary statements

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation. Dispose of the cleaned packaging without any residual product content in the sorted waste.

# Supplemental hazard information

Mandatory additional information is not required according to CLP regulation.

Composition according to regulation 648/2004/EC on detergents: < 5 % non-ionic surfactants, perfumes, HEXYL CINNAMAL, preservation agents (BENZYL ALCOHOL, METHYLCHLOROISOTHIAZOLINONE AND METHYLISOTHIAZOLINONE).

#### 2.3. Other hazards

Mixture does not contain substance(s) meeting the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with Annex XIII of REACH regulation. The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet (established in accordance with Article 59(1) of REACH regulation. Mixture does not contain the substance(s) 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**

#### 3.2. Mixtures

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3.2.1. Substances	of a mixture classified as hazar	dous	
	Identification of substance	Content wt. %	Classification according to 1272/2008/EC
Propan-2-ol; Isopro	oyl alcohol; Isopropanol		
CAS Number EC Number Index Number Registration Number	67-63-0 200-661-7 603-117-00-0 01-2119457558-25-XXXX	1 - < 10	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
N,N-Dimethyldecyla  CAS Number  EC Number  Index Number  Registration Number	2605-79-0 220-020-5 not given	0.1 - < 1	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M=1 ATE <sub>oral</sub> = 500 mg/kg bw
Ethanediol; Ethylen	e glycol		
CAS Number EC Number Index Number Registration Number	107-21-1 203-473-3 603-027-00-1 01-2119456816-28-XXXX	< 0.001	Acute Tox. 4; H302 STOT RE 2; H373 (kidney) (oral) ATE <sub>oral</sub> = 500 mg/kg bw
Full text of classificati	ons and H-phrases: see section 16.		

# **SECTION 4: First aid measures**

In all cases keep the victim at physical and mental rest and warm. In case of doubt or if symptoms persist, seek medical attention. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing. Protect yourself during rescue work.

# 4.1. Description of first aid measures

# Inhalation

Interrupt the exposure, move the person to the fresh air. In case of persistent nausea, seek medical advice.

#### Skin contact

Remove contaminated clothing, shoes, and wash affected skin thoroughly with water (preferably lukewarm) and soap. Do not use solvents or thinners. If the problem persists, seek medical advice.

# Eye contact

Rinse with a gentle stream of water for at least 15 minutes. Keep your eyelids wide open with your thumb and forefinger. If the affected person is wearing contact lenses, remove them before rinsing eyes if it is easy. If pain or redness persists, seek medical advice.

#### Ingestion

Rinse your mouth and then drink plenty of water. Do not induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Seek medical advice.

## 4.2. Most important symptoms and effects, both acute and delayed

Are not known.

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

Treat symptomatically and supportively.

# **SECTION 5: Firefighting measures**

# 5.1. Extinguishing media

# Suitable extinguishing media

Small fire:

Carbon dioxide CO<sub>2</sub>, dry extinguishing agent, sand or earth, alcohol-resistant foam.

Extensive fire:

Fragmented water streams (water mist), alcohol-resistant foam.

## Unsuitable extinguishing media

Solid streams of water may be ineffective.

# 5.2. Special hazards arising from the substance or mixture

In case of fire extinguishing prevent leakage of water and rest of product into drains. Collect them separately and dispose of safely in accordance with current legislation and applicable local regulations.

In case of fires, hazardous combustion gases are formed: carbon oxides, nitrogen oxides, ammonia and products of incomplete combustion.

# 5.3. Advice for firefighters

Stop further leakage of product if possible. Spilled product, which does not burn, cover with sand or foam. Move containers and barrels away from the fire to a safe place, if possible. Cool all affected containers down with flooding quantities of water. If the fire can't be extinguished - evacuate the premises.

In case of fire, wear suitable respiratory protective equipment and fire-fighting suit.

## SECTION 6: Accidental release measures

# 6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes, use suitable protective equipment and clothing, see Section 8. Ensure adequate ventilation. Avoid formation of vapour and aerosol. At the point of leakage, prevent the movement of unauthorized persons.

## 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. If this cannot be avoided, inform the competent authorities (police and firefighters) immediately.

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

According to the amount of spilled liquid, drain away the substance (large spillage) or in case of small spillage, absorb it with suitable absorbent (vermiculite, dry sand), put into labelled closed containers and dispose of them accordingly to Section 13. Flush residues with water and collect it for waste disposal. Do not use solvents or dispersants unless instructed by an expert or government authority.

If container is damaged, remove the content to the new undamaged container and label it properly again.

#### 6.4. Reference to other sections

Refer also to the provisions of sections 7, 8 and 13 of this safety data sheet.

# **SECTION 7: Handling and storage**

# 7.1. Precautions for safe handling

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Avoid contact with skin and eyes. Personal protection see Section 8. Ensure good ventilation to prevent formation of vapour and aerosol.

Smoking, eating and drinking should be prohibited at the place of use. Keep safety regulations for handling chemicals. Take off contaminated clothing and protective equipment before entering the dining area. Do not use dirty clothing. After work wash yourself carefully with warm water and soap, take a shower. Use protective cream.

# 7.2. Conditions for safe storage, including any incompatibilities

Inhalation

Dermal

Workers

Workers

Store in original, tightly closed containers, in a dry, cool and well-ventilated place at room temperature.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

Do not store together with incompatible materials (see subsection 10.5), food, drink and feed.

# 7.3. Specific end use(s)

SECTION OF EXPAGRA

See subsection 1.2.

SECTION 8: Exposure controls/personal protection						
8.1. Control para	ameters					
8.1.1. Exposure li	mit value					
Ethandiol				CAS: 107-21-1		
Limit values - Ei	ght hours	Limit values - Short-term	n Note			
52 mg/m <sup>3</sup>	20 ppm	104 mg/m <sup>3</sup> 40 ppr	n Skin			
8.1.2. Biological I	imit values					
Not determined in	EU.					
8.1.3. DNEL and F	PNEC values					
Propan-2-ol				CAS: 67-63-0		
DNEL						
Area of use	Route of exposure	e Effect	Exposure time	Value		
Workers	Inhalation	Systemic effect	Long term	500 mg/m <sup>3</sup>		
Workers	Inhalation	Systemic effect	Acute/Short term	1 000 mg/m <sup>3</sup>		
Workers	Dermal	Systemic effect	Long term	888 mg/kg/day		
General population	Inhalation	Systemic effect	Long term	89 mg/m <sup>3</sup>		
General population	Inhalation	Systemic effect	Acute/Short term	178 mg/m <sup>3</sup>		
General population	Dermal	Systemic effect	Long term	319 mg/kg/day		
General population	Oral	Systemic effect	Long term	26 mg/kg/day		
General population	Oral	Systemic effect	Acute/Short term	51 mg/kg/day		
PNEC - not available						
N,N-Dimethyldecyla	CAS: 2605-79-0					
DNEL						
Area of use	Route of exposure	e Effect	Exposure time	Value		

Systemic effect

Systemic effect

Long term

Long term

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6.2 mg/m<sup>3</sup>

11 mg/kg/day

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Inhalation	Systemic effect	Long term	1.53 mg/m <sup>3</sup>
Dermal	Systemic effect	Long term	5.5 mg/kg/day
Oral	Systemic effect	Long term	0.44 mg/kg/day
Marina water	Intermittent releases		Sewage Treatment
Marine water	Fresh water	Marine water	Plant (STP)
0.003 mg/l	0.034 mg/l	0.003 mg/l	4.59 mg/l
Sediment (marine w	rater) Air	Soil	Hazard for predators
0.524 mg/kg	no effect	1.02 mg/kg	11.1 mg/kg food
			CAS: 107-21-1
Route of exposure	Effect	Exposure time	Value
Inhalation	Local effect	Long term	35 mg/m <sup>3</sup>
Dermal	Systemic effect	Long term	106 mg/kg/day
Inhalation	Local effect	Long term	7 mg/m <sup>3</sup>
Dermal	Systemic effect	Long term	53 mg/kg/day
	Dermal Oral  Marine water 0.003 mg/l  Sediment (marine w 0.524 mg/kg  Route of exposure Inhalation Dermal Inhalation	Dermal Systemic effect Oral Systemic effect    Narine water	Dermal Systemic effect Long term Oral Systemic effect Long term    Intermittent releases

PNEC - not available

# 8.2. Exposure controls

# 8.2.1. Appropriate engineering controls

Use only in well-ventilated areas.

Observe usual safety precautions for working with chemicals. The degree of effectiveness of personal protective equipment depends on temperature and ventilation levels.

## 8.2.2. Individual protection measures, such as personal protective equipment

Do not eat, drink or smoke. After work, wash thoroughly with warm water and soap and take a shower. Use protective cream. Do not soiled protective equipment to wash, do not use solvents.

# Eye/face protection

Wear safety goggles or face shield when manufacturing and handling the product (EN 166, EN 149+A1). It is not necessary for normal use, in case of possible contact with the eyes, use protective glasses or a face shield.

#### Skin protection - hand protection

Wear protective gloves when manufacturing and handling the product (EN 374-1, EN 374-2). In normal use it is not necessary to use protective gloves. Wear protective gloves in case of prolonged skin contact.

The selection of the glove material on consideration of the breakthrough time, permeability, degradation and next relevant factors; other chemicals that may come into contact, physical requirements (cut and puncture protection, dexterity, thermal protection), possible body reactions to the glove material and the glove supplier's instructions and specifications. In case of repeated use of gloves, clean and keep them in a well-ventilated place before taking off.

# Skin protection - other

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Working clothing and protective footwear when manufacturing and handling the product.

#### Respiratory protection

Not necessary in case of compliance concentration limits (if they were exceeded, use respiratory protection). In the event of an accident or a fire use self-contained breathing apparatus.

#### Thermal hazards

In normal use is not necessary protective equipment to be worn for materials that represent a thermal hazard.

#### 8.2.3. Environmental exposure controls

Uncontrolled release of the mixture into environment is to be avoided. Keep the emission limits according to national legislation.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

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Physical stateLiquid.ColourLight blue.OdourCharacteristic.Melting point/freezing pointNot determined.

Boiling point or initial boiling point and boiling

range

82 °C.

Flammability The mixture is classified as flammable liquid

according to the value of the flash point.

Lower explosion limit Not determined for the mixture, values are given

for substances classified as flammable liquids.

Upper explosion limit

Not determined for the mixture, values are given

for substances classified as flammable liquids.

Flash point 31,5 °C.

Auto-ignition temperature Not determined.

**Decomposition temperature**Not determined, the mixture does not contain self-

reactive substances or organic peroxides.

**pH** 7 – 8 (20 °C).

Kinematic viscosity

Not determined, the mixture does not contain a

substance classified as aspiration toxic, or the sum of the concentrations of substances classified as

aspiration toxic is less than 10 wt. %.

**Solubility** Complete miscible.

Partition coefficient n-octanol/water (log value) Does not apply to mixture.

Vapour pressure 23 hPa.

**Density and/or relative density**  $D_4^{22} = 1.0184$ . **Relative vapour density** Not determined.

Particle characteristics Does not apply to liquid.

**Propan-2-ol** CAS: 67-63-0

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Physical state Liquid.

Colour Colorless.

Not determined. Odour

-88.5 °C (literature). Melting point/freezing point 82.3 °C (literature).

Boiling point or initial boiling point and boiling

range

Flammability Highly flammable liquid.

Lower explosion limit 2 vol. % (literature). 13 vol. % (literature). Upper explosion limit

Flash point 11.7 °C (literature). Auto-ignition temperature 399 - 455.6 °C (literature).

Not determined, it is not a self-reactive substance Decomposition temperature

or an organic peroxide or a substance that may

decompose.

pН Not determined.

Kinematic viscosity Not determined, it is not a hydrocarbon or a

chlorinated hydrocarbon.

Solubility Miscible with water.

log Pow = 0.05 (25 °C, literature).Partition coefficient n-octanol/water (log value)

Vapour pressure Not determined.

785.5 kg/m3 (20 °C, literature). Density and/or relative density

Relative vapour density Not determined.

Does not apply to liquid. Particle characteristics

N,N-Dimethyldecylamine N-oxide CAS: 2605-79-0

Physical state Solid. Colour White.

Odour Not determined.

133 -136 °C (literature). Melting point/freezing point

Boiling point or initial boiling point and boiling

range

**Flammability** The substance is not classified as flammable (EU

method A.10).

Not determined.

Lower explosion limit Does not apply to solid. Upper explosion limit Does not apply to solid. Flash point Does not apply to solid. Auto-ignition temperature Does not apply to solid.

Not determined, it is not a self-reactive substance Decomposition temperature

or an organic peroxide or a substance that may

decompose.

pН Not determined.

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Kinematic viscosity Does not apply to solid.

**Solubility** 409.5 g/l.

Partition coefficient n-octanol/water (log value) log Pow = 0.95 (calculation)

Vapour pressure 0 Pa (25 °C, calculation)

**Density and/or relative density**  $D_4^{23} = 0.716$  (EU method A.3).

Relative vapour density Does not apply to solid.

Particle characteristics Not determined.

Ethanediol CAS: 107-21-1

Physical stateLiquid.ColourColourless.OdourOdourless.

Melting point/freezing point -12.69 °C (literature).

Boiling point or initial boiling point and boiling 197.4 °C (literature).

range

Flammability The substance is not classified as flammable,

pyrophoric or emit flammable gases under

standard conditions.

Lower explosion limitNot determined.Upper explosion limitNot determined.Flash point115 °C (literature).Auto-ignition temperature412 °C (literature).

**Decomposition temperature**Not determined, it is not a self-reactive substance

or an organic peroxide or a substance that may

decompose.

**pH** Not determined.

Kinematic viscosity

Not determined, it is not a hydrocarbon or a

chlorinated hydrocarbon.

**Solubility** Miscible.

Partition coefficient n-octanol/water (log value)log Pow = -1.36 (literature).Vapour pressure100 Pa (51.1 °C, literature).1 kPa (86.1 °C, literature).10 kPa (132.5 °C, literature).100 kPa (196.9 °C, literature).

**Density and/or relative density** 1.11 g/cm<sup>3</sup> (DIN 51557).

Relative vapour density Not determined.

Particle characteristics Does not apply to liquid.

## 9.2. Other information

## 9.2.1. Information with regard to physical hazard classes

**Mixture** 

according to Regulation No. 1907/2006 of the European Parliament and of the Council, as subsequently amended

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## **Explosives**

Data for the mixture are not available.

The mixture does not contain substances classified as explosives or oxidising, or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

# Flammable gases

It is not gas.

#### **Aerosols**

It is not aerosol.

## Oxidising gases

It is not gas.

#### Gases under pressure

It is not gas.

# Flammable liquids

The mixture is classified as flammable liquid category 3 according to the value of the flash point of an aqueous solution of iso-propanol.

#### Flammable solids

It is not solid.

#### Self-reactive substances and mixtures

Data for the mixture are not available.

The mixture does not contain substances classified as self-reactive substances or explosives or organic peroxides or oxidising, or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

# Pyrophoric liquids

Data for the mixture are not available.

The mixture does not contain substances classified as pyrophoric liquids or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

#### Pyrophoric solids

It is not solid.

# Self-heating substances and mixtures

Data for the mixture are not available.

The mixture does not contain substances classified as self-heating or pyrophoric substances or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

#### Substances and mixtures, which emit flammable gases in contact with water

Data for the mixture are not available.

The mixture does not contain substances classified as substances, which emit flammable gases in contact with water or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

#### Oxidising liquids

Data for the mixture are not available.

The mixture does not contain substances classified as oxidising liquids or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

# Oxidizing solids

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# **KRYSTAL** For windows

It is not solid.

### Organic peroxides

Data for the mixture are not available.

The mixture does not contain substances classified as organic peroxides or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

#### Corrosive to metals

Data for the mixture are not available.

The mixture does not contain substances classified as corrosive to metals or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

#### Desensitised explosives

Data for the mixture are not available.

The mixture does not contain substances classified as explosives or desensitised explosives, or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

**Propan-2-ol** CAS: 67-63-0

#### **Explosives**

Data for the substance are not available.

The substance does not contain chemical groups associated with explosive properties.

Pure propan-2-ol is autoxidated by air and light to form an explosive cyclic triacetone triperoxide, which settles to the bottom of the vessel as a white sediment. In the event of such a finding, the container must be handled immediately and pyrotechnics called.

# Flammable gases

It is not gas.

# Aerosols

It is not aerosol.

# Oxidising gases

It is not gas.

#### Gases under pressure

It is not gas.

# Flammable liquids

The substance is classified as flammable liquid category 2 according to the value of the flash point and boiling point.

# Flammable solids

It is not solid.

#### Self-reactive substances and mixtures

Data for the substance are not available.

The substance does not contain chemical groups associated with explosive or self-reactive properties.

#### Pyrophoric liquids

Data for the substance are not available.

The substance is stable in air, there is no spontaneous ignition.

### Pyrophoric solids

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It is not solid.

# Self-heating substances and mixtures

Data for the substance are not available.

The substance is not classified as self-heating.

# Substances and mixtures, which emit flammable gases in contact with water

Data for the substance are not available.

The chemical structure of the substance does not contain metals or metalloids.

The substance is miscible with water and forms a stable mixture with it.

# **Oxidising liquids**

Data for the substance are not available.

It is an organic substance that does not contain oxygen, fluorine or chlorine, or these elements are chemically bounded only to carbon or hydrogen.

### Oxidizing solids

It is not solid.

#### Organic peroxides

Data for the substance are not available.

The substance does not contain a bivalent group -O-O- with at least one organic radical.

#### Corrosive to metals

Data for the substance are not available.

The substance is not classified as corrosive to metal.

## Desensitised explosives

Data for the substance are not available.

The substance does not contain chemical groups associated with explosive properties.

# N,N-Dimethyldecylamine N-oxide

# **Explosives**

Data for the substance are not available.

The substance contains chemical groups associated with explosive properties, but the calculated oxygen balance is less than -200.

Calculated oxygen balance = - 290.

## Flammable gases

It is not gas.

#### **Aerosols**

It is not aerosol.

#### Oxidising gases

It is not gas.

# Gases under pressure

It is not gas.

### Flammable liquids

It is not liquid.

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CAS: 2605-79-0

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## Flammable solids

The substance is not classified as flammable solid (EU method A.10).

#### Self-reactive substances and mixtures

Data for the substance are not available.

The substance is not classified as self-reactive.

# Pyrophoric liquids

It is not liquid.

# Pyrophoric solids

Data for the substance are not available.

The substance is stable in air, there is no spontaneous ignition.

#### Self-heating substances and mixtures

Data for the substance are not available.

The substance is not classified as self-heating.

# Substances and mixtures, which emit flammable gases in contact with water

Data for the substance are not available.

The chemical structure of the substance does not contain metals or metalloids.

The substance is soluble in water and forms a stable mixture with it.

## **Oxidising liquids**

It is not liquid.

# Oxidizing solids

Data for the substance are not available.

It is an organic substance does not contain chemical groups associated with oxidising properties.

## Organic peroxides

Data for the substance are not available.

The substance does not contain a bivalent group -O-O- with at least one organic radical.

# Corrosive to metals

Data for the substance are not available.

The substance is not classified as corrosive to metal.

#### Desensitised explosives

Data for the substance are not available.

The substance is not classified as explosive or desensitised explosive.

Ethanediol CAS: 107-21-1

### **Explosives**

Data for the substance are not available.

The substance does not contain chemical groups associated with explosive properties.

# Flammable gases

It is not gas.

#### **Aerosols**

It is not an aerosol.

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# Oxidising gases

It is not gas.

## Gases under pressure

It is not gas.

# Flammable liquids

The substance is not classified as flammable liquid according to the value of the flash point and boiling point.

#### Flammable solids

It is not solid.

#### Self-reactive substances and mixtures

Data for the substance are not available.

The substance does not contain chemical groups associated with explosive or self-reactive properties.

# Pyrophoric liquids

Data for the substance are not available.

The substance is stable in air, there is no spontaneous ignition.

# Pyrophoric solids

It is not solid.

# Self-heating substances and mixtures

Data for the substance are not available.

The substance is not classified as self-heating.

# Substances and mixtures, which emit flammable gases in contact with water

Data for the substance are not available.

The chemical structure of the substance does not contain metals or metalloids.

The substance is miscible with water and forms a stable mixture with it.

#### Oxidising liquids

Data for the substance are not available.

It is an organic substance that does not contain oxygen, fluorine or chlorine, or these elements are chemically bounded only to carbon or hydrogen.

# Oxidizing solids

It is not solid.

#### Organic peroxides

Data for the substance are not available.

The substance does not contain a bivalent group -O-O- with at least one organic radical.

#### Corrosive to metals

Data for the substance are not available.

The substance is not classified as corrosive to metal.

#### Desensitised explosives

Data for the substance are not available.

The substance does not contain chemical groups associated with explosive properties.

# 9.2.2. Other safety characteristics

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**Mechanical sensitivity**Not determined, it is not an explosive substance.

**Self-accelerating polymerisation temperature**Not determined, it is not a polymerising substance.

Formation of explosible dust/air mixtures Not determined, it is not a dust.

Acid/alkaline reserveNot determined.Evaporation rateNot determined.MiscibilityNot determined.ConductivityNot determined.CorrosivenessNot determined.

Gas group Not determined, it is not gas.

Redox potentialNot determined.Radical formation potentialNot determined.Photocatalytic propertiesNot determined.

# **SECTION 10: Stability and reactivity**

# 10.1. Reactivity

The mixture is stable under normal conditions of use. There aren't any hazardous reaction.

# 10.2. Chemical stability

Stable under recommended storage conditions.

# 10.3. Possibility of hazardous reactions

Hazardous reactions aren't known under normal conditions of use.

#### 10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

# 10.5. Incompatible materials

Strong oxidizing agents.

# 10.6. Hazardous decomposition products

They do not form under normal use. Burning releases carbon oxides, nitrogen oxides, ammonia and products of incomplete combustion.

# **SECTION 11: Toxicological information**

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

#### **Mixture**

#### Acute toxicity

The mixture is not classified as toxic for all routes of exposure.

**Oral** Data for the mixture are not available.

The mixture does not contain relevant substances classified as an acute toxicity by oral route of exposure or the concentration of substance(s) is lower than the limit for inclusion

in Section 3.

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# **KRYSTAL** For windows

**Dermal** Data for the mixture are not available.

The mixture does not contain relevant substances classified as an acute toxicity by dermal route of exposure or the concentration of substance(s) is lower than the limit for inclusion

in Section 3.

**Inhalation** Data for the mixture are not available.

The mixture does not contain relevant substances classified as an acute toxicity by inhalation route of exposure or the concentration of substance(s) is lower than the limit for

inclusion in Section 3.

#### Skin corrosion/irritation

Data for the mixture are not available.

The mixture does not contain relevant substances classified as hazardous to skin or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

# Serious eye damage/irritation

Data for the mixture are not available.

The mixture is not classified as eye irritant based on the general/specific concentration limits of substance(s).

# Respiratory or skin sensitisation

Data for the mixture are not available.

The mixture does not contain substances classified as sensitizing or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

### Germ cell mutagenicity

Data for the mixture are not available.

The mixture does not contain substances classified as mutagenicity or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

#### Carcinogenicity

Data for the mixture are not available.

The mixture does not contain substances classified as carcinogenicity or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

#### Reproductive toxicity

Data for the mixture are not available.

The mixture does not contain substances classified as toxic for reproduction or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

# STOT – single exposure

Data for the mixture are not available.

The mixture is not classified as toxic for specific target organs in a single exposure in category 3 according to the recommended concentration limits of substance(s).

## STOT - repeated exposure

Data for the mixture are not available.

The mixture does not contain relevant substances classified as toxic for specific target organs in a repeated exposure or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

# Aspiration hazard

Data for the mixture are not available.

The mixture does not contain substances classified as aspiration hazard or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

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# **KRYSTAL** For windows

Other information

See section 2 and 4.

**Propan-2-ol** CAS: 67-63-0

Acute toxicity

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

 $LD_{50} = 5 840 \text{ mg/kg bw (rat, OECD 401)}.$ 

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

 $LD_{50} = 16.4 \text{ ml/kg bw } (12.792 \text{ mg/kg bw at a density of } 0.78 \text{ g/cm}^3, \text{ rabbit, OECD } 402).$ 

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

 $LC_{50} > 10~000$  ppm (vapour, 6 h, OECD 403).

Skin corrosion/irritation

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

Mean erythema score = 0 and oedema = 0 (rabbit, OECD 404).

Serious eye damage/irritation

The substance is classified as eye irritant.

Total mean irritation score = 1.89 (rabbit, 72 h, OECD 405).

Respiratory or skin sensitisation

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

Not skin sensitising (guinea pig, OECD 406).

Germ cell mutagenicity

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

Negative (OECD 471, OECD 476).

Carcinogenicity

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

NOAEL = 5 000 ppm (testicular tumors, rat, male, vapour, OECD 451).

Reproductive toxicity

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

NOAEL = 853 mg/kg/day (rat, oral, generation P0, OECD 415).

STOT - single exposure

The substance may cause drowsiness or dizziness.

STOT – repeated exposure

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

NOEC = 500 ppm (specific toxic effect, rat, vapour, 104 weeks, OECD 451).

NOAEC = 5 000 ppm (specific exposure-related adverse reaction, rat, vapour, 104 weeks, OECD 451).

NOEC = 5 000 ppm (effects of oncogenicity, rat, vapour, 104 weeks, OECD 451).

Aspiration hazard

The substance is not a hydrocarbon or a chlorinated hydrocarbon with a kinematic viscosity of 20.5 mm<sup>2</sup>/s or less at 40 °C.

N,N-Dimethyldecylamine N-oxide CAS: 2605-79-0

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# **KRYSTAL** For windows

Acute toxicity

**Oral** The substance is classified in category 4.

 $LD_{50} > 300 - < 2000$  mg/kg bw (rat, female).

ATE = 500 mg/kg bw (for calculation by additive formula).

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

 $LD_{50} > 2 000 \text{ mg/kg bw (rat)}.$ 

**Inhalation** Data for the substance are not available.

#### Skin corrosion/irritation

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

Mean erythema score = 1 (fully reversible after 7 days) and oedema = 0 (rabbit, 72 hrs., OECD 404).

# Serious eye damage/irritation

The substance is classified as seriously damaging to the eyes.

Mean irritation score = 16.3 (chicken, Hen's Egg Test - Chorioallantoic Membrane (HET-CAM) Test Method).

#### Respiratory or skin sensitisation

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

Not skin sensitising (guinea pig, OECD 406).

# Germ cell mutagenicity

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

Negative (OECD 471, EU method B.17, OECD 487).

#### Carcinogenicity

Data for the substance are not available.

### Reproductive toxicity

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

NOAEL = 40 mg/kg/day (rat, oral, generation P0, OECD 422).

NOAEL = 100 mg/kg/day (rat, oral, generation F1, OECD 422).

#### STOT - single exposure

Data for the substance are not available.

#### STOT - repeated exposure

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

NOAEL = 88 mg/kg/day (rat, oral, 90 days, OECD 408).

# Aspiration hazard

The substance is not a hydrocarbon or a chlorinated hydrocarbon with a kinematic viscosity of 20.5 mm<sup>2</sup>/s or less at 40 °C.

Ethanediol CAS: 107-21-1

Acute toxicity

**Oral** The substance is classified in category 4 according to harmonized classification.

 $LD_{50} = 7.712$  mg/kg bw (rat, 30% solution, BASF test). ATE = 500 mg/kg bw (for calculation by additive formula).

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# **KRYSTAL For windows**

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

 $LD_{50} > 3500$  mg/kg bw (mouse, literature).

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

 $LC_{50} > 2.5$  mg/l (aerosol, rat, 6 hrs., no death is observed, literature).

#### Skin corrosion/irritation

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

Total irritation score = 0 (BASF test).

#### Serious eye damage/irritation

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

Total irritation score = 0 (BASF test).

### Respiratory or skin sensitisation

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

Not skin sensitising (guinea pig, maximization test).

# Germ cell mutagenicity

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

Negative (OECD 471).

# Carcinogenicity

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

NOAEL = 1 000 mg/kg/day (rat, oral, literature).

#### Reproductive toxicity

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

NOAEL > 1 000 mg/kg/day (rat, oral, generation P0, literature).

NOAEL > 1 000 mg/kg/day (rat, oral, generation F1, literature).

# STOT – single exposure

Data for the substance are not available.

#### STOT - repeated exposure

May cause damage to kidney through prolonged or repeated oral exposure.

NOAEL = 853 mg/kg/day (kidney, rat, oral, 90 days, OECD 408).

#### Aspiration hazard

The substance is not a hydrocarbon or a chlorinated hydrocarbon with a kinematic viscosity of 20.5 mm<sup>2</sup>/s or less at 40 °C.

#### 11.2. Information on other hazards

Mixture does not contain substance(s) meeting the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with Annex XIII of REACH regulation. The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet and given in the list (established in accordance with Article 59(1) for having endocrine disrupting properties of REACH regulation.

Mixture does not contain the substance(s) 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. There is no other relevant information on adverse health effects that is not required according to the classification criteria set out in CLP Regulation.

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# **KRYSTAL** For windows

# **SECTION 12: Ecological information**

# 12.1. Toxicity

#### **Mixture**

Data for the mixture are not available.

#### Acute aquatic toxicity

The mixture is not classified as acute aquatic toxicity based on calculation according to the summation method

category 1  $\sum < 1$ 

#### Chronic aquatic toxicity

The mixture does not contain relevant substances classified as a chronic aquatic toxicity or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

**Propan-2-ol** CAS: 67-63-0

The substance is not classified as hazardous for the aquatic environment.

#### Fish

LC<sub>50</sub>, 96 hrs., Pimephales promelas: 9 640 - 10 000 mg/l (mortality, OECD 203)

#### Crustaceans

EC<sub>50</sub>, 24 hrs., Daphnia Magna: > 10 000 mg/l (mobility, OECD 202)

logNOEC, 16 d., Daphnia Magna: 3.37 (growth, NOEC = 2 344 µmol/l = 140.9 mg/l)

## Algae

Threshold toxicity, 7 d., Scenedesmus quadricauda: 1.800 mg/l

#### N,N-Dimethyldecylamine N-oxide

The substance is classified as Aquatic Acute 1; H400 (M = 1) and Aquatic Chronic 2; H411.

#### Fish

LC<sub>50</sub>, 96 hrs., Danio rerio: 31.8 mg/l (mortality).

NOEC, 15 d., Pimephales promelas: 0.495 mg/l (survival and mean length).

#### Crustaceans

EC<sub>50</sub>, 48 hrs., Daphnia Magna: 2.9 mg/l (mobility).

NOEC, 21 d., Daphnia Magna: 0.7 mg/l.

#### Algae

EC<sub>50</sub>, 72 hrs, Pseudokirchneriella subcapitata: 0.205 mg/l (biomass).

EC<sub>50</sub>, 72 hrs, Pseudokirchneriella subcapitata: 0.266 mg/l (growth rate).

NOEC, 72 hrs, Pseudokirchneriella subcapitata: 0.078 mg/l (growth rate).

Ethanediol CAS: 107-21-1

The substance is not classified as hazardous for the aquatic environment.

#### Fish

LC<sub>50</sub>, 96 hrs., Pimephales promelas: > 72 860 mg/l (mortality, literature).

NOEC, 7 d., Pimephales promelas: 32 000 mg/l (mortality, EPA 600/4-89/001).

#### Crustaceans

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CAS: 2605-79-0

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# KRYSTAL For windows

EC<sub>50</sub>, 48 hrs., Daphnia Magna: > 100 mg/l (mobility, OECD 202). NOEC, 21 d., Daphnia Magna: 2 mg/l (reproduction, literature).

#### Algae

IC<sub>50</sub>, 96 hrs., Pseudokirchneriella subcapitata: 10 940 mg/l (number of cells, EPA/600/4-89/001).

# 12.2. Persistence and degradability

### **Mixture**

Data for the mixture are not available.

Propan-2-ol CAS: 67-63-0

Readily biodegradable: 53 % after 5 days (CO2 evolution, OECD 301 B).

#### N,N-Dimethyldecylamine N-oxide

CAS: 2605-79-0

Readily biodegradable: 97 % after 28 days (removal of dissolved organic carbon, OECD 301 E).

Ethanediol CAS: 107-21-1

Readily biodegradable: 90 - 100 % after 10 days (removal of dissolved organic carbon, OECD 301 A).

# 12.3. Bioaccumulative potential

#### **Mixture**

Data for the mixture are not available.

**Propan-2-ol** CAS: 67-63-0

log Pow = 0.05 (25 °C).

N,N-Dimethyldecylamine N-oxide CAS: 2605-79-0

log Pow = 0.95 (calculation).

Ethanediol CAS: 107-21-1

log Pow = -1.36 (literature).

# 12.4. Mobility in soil

#### **Mixture**

Data for the mixture are not available.

Propan-2-ol CAS: 67-63-0

Data for the substance are not available.

N,N-Dimethyldecylamine N-oxide CAS: 2605-79-0

Koc = 307 - 2113 (by kind of soil, 23.6 °C).

Ethanediol CAS: 107-21-1

 $\log Koc = 0 \text{ I/kg ((Q)SAR method)}.$ 

# 12.5. Results of PBT and vPvB assessment

Mixture does not contain substance(s) meeting the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with Annex XIII of REACH Regulation. The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet (established in accordance with Article 59(1) of REACH Regulation.

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# **KRYSTAL** For windows

# 12.6. Endocrine disrupting properties

The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet (established in accordance with Article 59(1) of REACH Regulation. Mixture does not contain the substance(s) 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.

## 12.7. Other adverse effects

Data are not available.

# **SECTION 13: Disposal considerations**

# 13.1. Waste treatment methods

# Disposal methods of the substance or mixture and the contaminated packaging

Dispose according to the applicable European and local regulations (eg. in a hazardous waste incinerator). Do not empty unused product into drainage systems. Do not contaminate ponds or ditches with the product or used container. Hand over the residual amounts and solutions to a licensed disposal company.

Hand over the remaining quantities and unregenerate solutions to an authorized person (specialized company with authorization) or to the collection yard in the hazardous waste section according to the worker's instructions. Empty, cleaned packaging can be stored at a landfill of the appropriate category or **in the sorted waste**.

#### Possible waste code

07 06 01\* - aqueous washing liquids and mother liquors or 20 01 29\* - detergents containing hazardous substances (mixture), 15 01 10\* - packaging containing residues of or contaminated by hazardous substances (contaminated packaging), 15 01 02 - plastic packaging (clear packaging).

# Physical/chemical properties that may affect waste treatment options

Flammability.

# Special precautions recommended for waste management

Not known.

#### Waste legislation

Directive 2008/98/EC on waste and repealing certain Directives, as amended.

# **SECTION 14: Transport information**

## 14.1. UN number or ID number

UN 1987.

# 14.2. UN proper shipping name

ALCOHOLS, N.O.S. (Propan-2-ol).

# 14.3. Transport hazard class(es)

3

# 14.4. Packing group

Ш

# 14.5. Environmental hazards

It is not dangerous for the environment during transport.

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# **KRYSTAL** For windows

# 14.6. Special precautions for user

Not given.

# 14.7. Maritime transport in bulk according to IMO instruments

Not available.

#### 14.8. Other information

# Labeling according to ADR



#### Additional data for ADR/RID

Classification code F1
Labels 3
Hazard identification code 30

Tunnel restriction code D/E (ADR), - (RID).

Limited quantities 5 I

Excepted quantities Maximum net quantity per inner packaging: 30 ml.

Maximum net quantity per outer packaging: 1 000 ml.

Transport category 3

Additional data for IMDG

Emergency Schedules (EmS) F-E, S-D.

# **SECTION 15: Regulatory information**

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

Regulation No. 1907/2006/EC, concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended (REACH)

Regulation No. 1272/2008/EC, on Classification, Labelling and Packaging of substances and mixtures, as amended (CLP)

Regulation No. 648/2004/EC on detergents, as amended

## 15.2. Chemical safety assessment

It was not done for the mixture.

# **SECTION 16: Other information**

# Reason for the revision of the safety data sheet

Change of the classification and labeling of the mixture. Change in the composition of the mixture in section 3 and related changes in the other sections.

Key or legend to abbreviations and acronyms

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# KRYSTAL For windows

Acute Tox. 4 Acute toxicity, cat. 4

Aquatic Acute 1 Acute aquatic hazard, cat. 1
Aquatic Chronic 2 Chronic aquatic hazard, cat. 2

Eye Dam. 1 Serious eye damage, cat. 1

Eye Irrit. 2 Eye irritation, cat. 2
Flam. Liq. 2 Flammable liquid, cat. 2
Flam. Liq. 3 Flammable liquid, cat. 3

STOT RE 2 Specific target organ toxicity - repeated exposure, cat. 2 STOT SE 3 Specific target organ toxicity - single exposure, cat. 3

ATE Acute Toxicity Estimate

bw body weight

M Multiplying factor

ADR Accord Dangereuses Route

CLP Regulation No. 1272/2008/EC, on Classification, Labelling and Packaging of subs-

tances and mixtures

DNEL Derived No Effect Level

ICAO/IATA International Air Transport Association
IMDG International Maritime Dangerous Goods
PBT Persistent, bioaccumulative, toxic substance

PNEC Predicted No Effect Concentration

REACH Regulation No. 1907/2006/EC, concerning the Registration, Evaluation, Authorisation

and Restriction of Chemicals

RID Regulation concerning the International Carriage of Dangerous Goods by Rail

STOT Specific target organ toxicity

vPvB Very persistent and very bioaccumulative substance

# Sources of key data used to compile the Safety Data Sheet

European legislation, manufacturer's safety data sheet, registration dossier of substances.

# List of H- and P- phrases

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H318 Causes serious eye damage. H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

P102 Keep out of reach of children.

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# KRYSTAL For windows

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation. Dispose of the cleaned packaging without any residual product content in the sorted waste.

Training advice

According to SDS.

#### Other information

Classification according to data from the manufacturer. The mixture is classified using calculation methods according to Regulation CLP and tests. Use only for the purposes designated by the manufacturer, will prevent health and environmental risks.

The information in this safety data sheet has been prepared according to the best available knowledge. The safety data sheet has been compiled in good faith but without guarantee. Various factors may influence properties under specific conditions. It is the responsibility of the product user to assess the accuracy of the information for their specific application. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

The safety data sheet is prepared in accordance with Regulation No. 2020/878/EC. There is no additional information in accordance with the local and national legislation of the Member State in the European Union, in the safety data sheet.

The safety data sheet was prepared by LACHEPRA s.r.o.

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