

**EQ21R - CRYSTAL PURE - REAGENT****Safety Data Sheet**

According to Annex II to REACH - Regulation (EU) 2020/878

**SECTION 1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Code: **EQ21R**  
 Product name: **CRYSTAL PURE - REAGENT**  
 UFI: **5FR0-403D-E000-8SRD**

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

Intended use: **Two-component epoxy coating**

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

Name: **VOLTECO S.P.A**  
 Full address: **via delle industrie 47**  
 District and Country: **31050 Ponzano Veneto (TV) Italia**  
 Tel.: **04229663**  
 e-mail address of the competent person responsible for the Safety Data Sheet: **volteco@volteco.it**

**1.4. Emergency telephone number**

For urgent inquiries refer to:

- +39 06 68593726 (CAV "Osp. Pediatrico Bambino Gesù" Dip. Emergenza e Accettazione DEA - Roma - 00165)**
- +39 800183459 (Az. Osp. Univ. Foggia - Foggia - 71222)**
- +39 081 7472870 (Az. Osp. "A. Cardarelli" - Napoli - 80131)**
- +39 06 49978000 (CAV Policlinico "Umberto I" - Roma - 161)**
- +39 06 3054343 (CAV Policlinico "A. Gemelli" - Roma - 168)**
- +39 055 7947819 (Az. Osp. "Careggi" U.O. Tossicologia Medica - Firenze - 50134)**
- +39 0382 24444 (CAV Centro Nazionale di Informazione Tossicologica - Pavia - 27100)**
- +39 02 66101029 (Osp. Niguarda Ca' Granda - Milano - 20162)**
- +39 800883300 (Azienda Ospedaliera Papa Giovanni XXII - Bergamo - 24127)**

**SECTION 2. Hazards identification****2.1. Classification of the substance or mixture**

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

## Hazard classification and indication:

Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

**2.2. Label elements**

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



**EQ21R - CRYSTAL PURE - REAGENT****SECTION 2. Hazards identification ... / >>**

Signal word: Danger

Hazard statements:

**H314** Causes severe skin burns and eye damage.  
**H317** May cause an allergic skin reaction.  
**H412** Harmful to aquatic life with long lasting effects.

Precautionary statements:

**P260** Do not breathe dust / fume / gas / mist / vapours / spray.  
**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**P303+P361+P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
**P280** Wear protective gloves/ protective clothing / eye protection / face protection.  
**P310** Immediately call a POISON CENTER / doctor / . . .

**Contains:**

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE  
 4,4'-ISOPROPYLIDENDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH  
 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH  
 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE  
 POLY[OXY(METHYL-1,2-ETHANEDIYL)], A-(2-AMINOMETHYLETHYL)-Ω-(2-AMINOMETHYLETHOXY)-

**2.3. Other hazards**

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

**SECTION 3. Composition/information on ingredients****3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
<b>POLY[OXY(METHYL-1,2-ETHANEDIYL)], A-(2-AMINOMETHYLETHYL)-Ω-(2-AMINOMETHYLETHOXY)-</b>		
<b>INDEX</b>	$9 \leq x < 19$	<b>Skin Corr. 1C H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412</b>
<b>EC</b>	618-561-0	<b>Eye Irrit. 2 H319: <math>\geq</math> 1%</b>
<b>CAS</b>	9046-10-0	
<b>REACH Reg.</b>	01-2119557899-12	
<b>4,4'-ISOPROPYLIDENDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE</b>		
<b>INDEX</b>	$9 \leq x < 19$	<b>Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412</b>
<b>EC</b>	500-101-4	
<b>CAS</b>	38294-64-3	
<b>REACH Reg.</b>	01-2119965165-33	
<b>3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE</b>		
<b>INDEX</b>	$5 \leq x < 9$	<b>Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1A H317</b>
<b>EC</b>	220-666-8	<b>Skin Sens. 1A H317: <math>\geq</math> 0,001%</b>
<b>CAS</b>	2855-13-2	<b>LD50 Oral: 1030 mg/kg</b>
<b>REACH Reg.</b>	01-2119514687-32-XXXX	
<b>BENZYL ALCOHOL</b>		
<b>INDEX</b>	$3 \leq x < 3,5$	<b>Acute Tox. 4 H302, Acute Tox. 4 H332</b>
<b>EC</b>	202-859-9	<b>LD50 Oral: 1230 mg/kg, ATE Inhalation vapours: 11 mg/l</b>
<b>CAS</b>	100-51-6	

The full wording of hazard (H) phrases is given in section 16 of the sheet.

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

In case of doubt or in the presence of symptoms contact a doctor and show him this document.

**EQ21R - CRYSTAL PURE - REAGENT****SECTION 4. First aid measures ... / >>**

In case of more severe symptoms, ask for immediate medical aid.

**EYES:** Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.

**SKIN:** Take off immediately all contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice/attention. Avoid further contact with contaminated clothing.

**INGESTION:** Do not induce vomiting unless explicitly authorised by a doctor. Rinse your mouth with running water. Do not give anything by mouth to an unconscious person. Get medical advice/attention.

**INHALATION:** Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops breathing, administer artificial respiration. Get medical advice/attention.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

Specific information on symptoms and effects caused by the product are unknown.

**DELAYED EFFECTS:** Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

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

Immediately call a POISON CENTER / doctor / . . .

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

**SECTION 5. Firefighting measures****5.1. Extinguishing media**

## SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

## UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

**5.2. Special hazards arising from the substance or mixture**

## HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

**5.3. Advice for firefighters**

## GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

## SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

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## SECTION 6. Accidental release measures ... / &gt;&gt;

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

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

## 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## SECTION 7. Handling and storage

## 7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

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

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

## 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

## 8.1. Control parameters

Regulatory references:

DEU	Deutschland	WirkungDosisNOAELMAK-und BAT-Werte-Liste 2024 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe
POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 24 czerwca 2024 r. zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti rakotvornim, mutagenim ali reprotoksičnim snovem pri delu. Ljubljana, četrtek 4. 4. 2024

## BENZYL ALCOHOL

## Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	22	5	44	10	SKIN 11
MAK	DEU	22	5	44	10	SKIN
NDS/NDSch	POL	240				
MV	SVN	22	5	44	10	SKIN

## Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation								90 mg/m3

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## SECTION 8. Exposure controls/personal protection ... / &gt;&gt;

## 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE

## Predicted no-effect concentration - PNEC

Normal value in fresh water	0,06	mg/l
Normal value in marine water	0,006	mg/l
Normal value for fresh water sediment	5,784	mg/kg/d
Normal value for marine water sediment	0,578	mg/kg/d
Normal value for water, intermittent release	0,23	mg/l
Normal value of STP microorganisms	3,18	mg/l
Normal value for the terrestrial compartment	1,121	mg/kg/d

## Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Chronic systemic	Effects on workers		
	Acute local	Acute systemic	Chronic local		Acute local systemic	Chronic local	Chronic systemic
Oral				0,526 mg/kg bw/d			
Inhalation					0,073 mg/m3		0,073 mg/m3

## POLY[OXY(METHYL-1,2-ETHANEDIYL)], A-(2-AMINOMETHYLETHYL)-Ω-(2-AMINOMETHYLETHOXY)-

## Predicted no-effect concentration - PNEC

Normal value in fresh water	0,015	mg/l
Normal value in marine water	0,014	mg/l
Normal value for fresh water sediment	0,132	mg/kg
Normal value for marine water sediment	0,125	mg/kg
Normal value for marine water, intermittent release	0,142	mg/l
Normal value for fresh water, intermittent release	0,15	mg/l
Normal value of STP microorganisms	7,5	mg/l
Normal value for the food chain (secondary poisoning)	6,93	mg/kg
Normal value for the terrestrial compartment	0,018	mg/kg

## Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Chronic systemic	Effects on workers		
	Acute local	Acute systemic	Chronic local		Acute local systemic	Chronic local	Chronic systemic
Oral		NEA		NEA			
Inhalation	NEA	NEA	NEA	NEA	NPI	NPI	5,29 mg/m3
Skin	NEA	NEA	NEA	NEA	MED	MED	2,5 mg/kg bw/d

## Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

## 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

## HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

## SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

## EYE PROTECTION

Wear airtight protective goggles (see standard EN ISO 16321).

## RESPIRATORY PROTECTION

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing

**EQ21R - CRYSTAL PURE - REAGENT****SECTION 8. Exposure controls/personal protection ... / >>**

apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

**ENVIRONMENTAL EXPOSURE CONTROLS**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

**SECTION 9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Properties	Value	Information
Appearance	liquid	
Colour	yellowish	
Odour	amino	
Melting point / freezing point	not available	
Initial boiling point	not available	
Boiling range	205	°C
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	> 60	°C
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	9	
Kinematic viscosity	not available	
Solubility	not available	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	10,3	mmHg
Density and/or relative density	1,41	
Relative vapour density	not available	
Particle characteristics	not applicable	

**9.2. Other information**

## 9.2.1. Information with regard to physical hazard classes

Information not available

## 9.2.2. Other safety characteristics

Information not available

**SECTION 10. Stability and reactivity****10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

**BENZYL ALCOHOL**

Decomposes at temperatures above 870°C/1598°F. Possibility of explosion.

Decomposes at temperatures above 870°C/1598°F. Possibility of explosion.

**3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE**

Attack: copper, zinc, tin alloys.

**10.2. Chemical stability**

The product is stable in normal conditions of use and storage.

**10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

**EQ21R - CRYSTAL PURE - REAGENT****SECTION 10. Stability and reactivity ... / >>****BENZYL ALCOHOL**

May react dangerously with: hydrobromic acid, iron, oxidising agents, sulphuric acid. Risk of explosion on contact with: phosphorus trichloride.

May react dangerously with: hydrobromic acid, iron, oxidizing agents, sulfuric acid. Risk of explosion in contact with: dioxide trichloride phosphorus.

**3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE**

May react dangerously with: strong oxidising agents, concentrated inorganic acids.

It can react dangerously with: strong oxidants, concentrated inorganic acids.

**10.4. Conditions to avoid**

None in particular. However the usual precautions used for chemical products should be respected.

**BENZYL ALCOHOL**

Avoid exposure to: air, sources of heat, naked flames.

Avoid exposure to: air, heat sources, open flames.

**3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE**

Avoid contact with: strong acids, strong oxidants.

Avoid contact with: strong acids, strong oxidants.

**10.5. Incompatible materials****BENZYL ALCOHOL**

Incompatible with: sulphuric acid, oxidising substances, aluminium.

Incompatible with: sulfuric acid, oxidizing substances, aluminium.

**10.6. Hazardous decomposition products**

Information not available

**SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

POLY[OXY(METHYL-1,2-ETHANEDIYL)], A-(2-AMINOMETHYLETHYL)-Ω-(2-AMINOMETHYLETHOXY)-

LD50 (Dermal): 2979,7 mg/kg

LD50 (Oral): 2885,3 mg/kg

LC50 (Inhalation vapours): > 0,74 mg/l/8h

**SECTION 11. Toxicological information ... / >>****3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE**

LD50 (Dermal): > 2000 mg/kg  
LD50 (Oral): 1030 mg/kg  
LC50 (Inhalation mists/powders): > 5,01 mg/l/4h

**BENZYL ALCOHOL**

LD50 (Dermal): 2000 mg/kg (Rabbit)  
LD50 (Oral): 1230 mg/kg Rat-Food and Cosmetics Toxicology. Vol. 2, Pg. 327, 1964  
LC50 (Inhalation vapours): > 4,1 mg/l/4h (Rat)  
ATE (Inhalation vapours): 11 mg/l estimate from table 3.1.2 of Annex I of the CLP  
(figure used for calculation of the acute toxicity estimate of the mixture)

**SKIN CORROSION / IRRITATION**

Corrosive for the skin

**SERIOUS EYE DAMAGE / IRRITATION**

Causes serious eye damage

**RESPIRATORY OR SKIN SENSITISATION**

Sensitising for the skin

**Respiratory sensitization**

**BENZYL ALCOHOL**  
Non -sensitizing OECD 429 Mouse (Local Lymph Node Assay)

**Skin sensitization**

**BENZYL ALCOHOL**  
Irritating 24h rabbit oecd 405

**GERM CELL MUTAGENICITY**

Does not meet the classification criteria for this hazard class

**BENZYL ALCOHOL**  
Negative OECD 429 (Bacterial Reverse Mutation Assay)

**CARCINOGENICITY**

Does not meet the classification criteria for this hazard class

**BENZYL ALCOHOL**  
Non -carcinogen oral: swallowing 104 weeks once a day, 5 days/week. RATIO OECD 451

**REPRODUCTIVE TOXICITY**

Does not meet the classification criteria for this hazard class

**BENZYL ALCOHOL**  
Noael P 200 mg/kg oral

**STOT - SINGLE EXPOSURE**

Does not meet the classification criteria for this hazard class

**STOT - REPEATED EXPOSURE**

Does not meet the classification criteria for this hazard class

**BENZYL ALCOHOL**  
Noael 400 mg/kg oral ratio oecd 408 (Repeated dose 90-day oral toxicity in Rodents)

**ASPIRATION HAZARD**

Does not meet the classification criteria for this hazard class

**EQ21R - CRYSTAL PURE - REAGENT****SECTION 11. Toxicological information ... / >>****11.2. Information on other hazards**

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

**SECTION 12. Ecological information**

This product is dangerous for the environment and the aquatic organisms. In the long term, it has negative effects on the aquatic environment.

**12.1. Toxicity**

POLY[OXY(METHYL-1,2-ETHANEDIYL)], A-(2-AMINOMETHYLETHYL)-Ω-(2-AMINOMETHYLETHOXY)-  
LC50 - for Fish > 15 mg/l/96h  
EC50 - for Crustacea 80 mg/l/48h  
EC50 - for Algae / Aquatic Plants 15 mg/l/72h

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE  
LC50 - for Fish 110 mg/l/96h  
EC50 - for Crustacea 23 mg/l/48h  
EC50 - for Algae / Aquatic Plants 37 mg/l/72h  
Chronic NOEC for Crustacea 3 mg/l

**12.2. Persistence and degradability**

4,4'-ISOPROPYLIDENDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE  
NOT rapidly degradable

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE  
NOT rapidly degradable

BENZYL ALCOHOL  
Rapidly degradable Aerobico 92-96% OECD 301 C

**12.3. Bioaccumulative potential**

POLY[OXY(METHYL-1,2-ETHANEDIYL)], A-(2-AMINOMETHYLETHYL)-Ω-(2-AMINOMETHYLETHOXY)-  
Partition coefficient: n-octanol/water 1,34

BENZYL ALCOHOL  
Partition coefficient: n-octanol/water 1,1

**12.4. Mobility in soil**

Information not available

**12.5. Results of PBT and vPvB assessment**

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

**12.6. Endocrine disrupting properties**

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

**12.7. Other adverse effects**

Information not available

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

**EQ21R - CRYSTAL PURE - REAGENT****SECTION 13. Disposal considerations ... / >>**

Waste transportation may be subject to ADR restrictions.

The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**SECTION 14. Transport information****14.1. UN number or ID number**

ADR / RID, IMDG, IATA: UN 3267

**14.2. UN proper shipping name**

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POLY[OXY(METHYL-1,2-ETHANEDIYL)], A-(2-AMINOMETHYLETHYL)-Ω-(2-AMINOMETHYLETHOXY)-; 4,4'-ISOPROPYLIDENDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE)

IMDG: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POLY[OXY(METHYL-1,2-ETHANEDIYL)], A-(2-AMINOMETHYLETHYL)-Ω-(2-AMINOMETHYLETHOXY)-; 4,4'-ISOPROPYLIDENDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE ;3-aminometil-3,5,5-trimetilcicloesilamina)

IATA: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POLY[OXY(METHYL-1,2-ETHANEDIYL)], A-(2-AMINOMETHYLETHYL)-Ω-(2-AMINOMETHYLETHOXY)-; 4,4'-ISOPROPYLIDENDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE)

**14.3. Transport hazard class(es)**

ADR / RID: Class: 8 Label: 8



IMDG: Class: 8 Label: 8



IATA: Class: 8 Label: 8

**14.4. Packing group**

ADR / RID, IMDG, IATA: III

**14.5. Environmental hazards**

ADR / RID: NO  
IMDG: not marine pollutant  
IATA: NO

**14.6. Special precautions for user**

ADR / RID:	HIN - Kemler: 80 Special provision: 274	Limited Quantities: 5 lt	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-B	Limited Quantities: 5 lt	
IATA:	Cargo: Passengers: Special provision:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

**14.7. Maritime transport in bulk according to IMO instruments**

Information not relevant

**EQ21R - CRYSTAL PURE - REAGENT****SECTION 15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**Seveso Category - Directive 2012/18/EU: NoneRestrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006Product

Point 3

Contained substancePoint 75 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE  
REACH Reg.: 01-2119514687-32-XXXXRegulation (EU) 2019/1148 - on the marketing and use of explosives precursors  
not applicableSubstances in Candidate List (Art. 59 REACH)On the basis of available data, the product does not contain any SVHC in percentage  $\geq$  than 0,1%.Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

**15.2. Chemical safety assessment**

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

**SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Skin Corr. 1C</b>	Skin corrosion, category 1C
<b>Skin Corr. 1</b>	Skin corrosion, category 1
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Skin Sens. 1A</b>	Skin sensitization, category 1A
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H302</b>	Harmful if swallowed.
<b>H332</b>	Harmful if inhaled.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H412</b>	Harmful to aquatic life with long lasting effects.

## LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number

**EQ21R - CRYSTAL PURE - REAGENT****SECTION 16. Other information ... / >>**

- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

## GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (UE) 2023/707
24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
25. Delegated Regulation (UE) 2023/1435 (XX Atp. CLP)
26. Delegated Regulation (UE) 2024/197 (XXI Atp. CLP)
27. Delegated Regulation (UE) 2024/2564 (XXII Atp. CLP)
28. Regulation (EU) 2024/2865

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**EQ21R - CRYSTAL PURE - REAGENT****SECTION 16. Other information ... / >>**

## Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

## Changes to previous review:

The following sections were modified:

03 / 08 / 10 / 11 / 12 / 16.