

## C-SYSTEMS 10 10 CFS comp. B STANDARD

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

#### 1.1 Product identifier

Trade name : C-10 10 CFS B Standard  
UFI : T030-10UD-K004-7WHC

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

Use of the : Epoxy Hardener  
Substance/Mixture

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

Company: Cecchi Gustavo & C. srl - Via M. Coppino 253,  
55049 Viareggio (LU) ITALY www.cecchi.it - info@cecchi.it  
Information in case of emergency: +39 0584 383694 - info@cecchi.it  
From monday to friday office hours 8:30 – 12:30, 14:00 – 18:30

#### 1.1 Emergency telephone number

+39 0584 383694

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin corrosion, Sub-category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements

##### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word	:	Danger	
Hazard statements	:	H302 + H332 H314 H317 H412	Harmful if swallowed or if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.
Supplemental Hazard Statements	:	EUH071	Corrosive to the respiratory tract.
Precautionary statements	:	<b>Prevention:</b> P261 P273 P280	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
		<b>Response:</b> P303 + P361 + P353 P304 + P340 + P310 P305 + P351 + P338 + P310	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Hazardous components which must be listed on the label:

Polymer of MXDA

bicyclo[2.2.1]heptanebis(methylamine)

3-aminomethyl-3,5,5-trimethylcyclohexylamine

m-phenylenebis(methylamine)

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with m-phenylenebis(methylamine)

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine



2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Cycloaliphatic amine based mixture

Hazardous components

Chemical name	CAS-No. EC-No./List Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
Polymer of MXDA	Not Assigned /	Acute Tox.4; H302 Acute Tox.4; H332 Skin Sens.1; H317 Aquatic Chronic3; H412	>= 50 - <= 100
bicyclo[2.2.1]heptanebis(methylamine)	56602-77-8 260-280-7 01-2120752792-48	Acute Tox.4; H302 Skin Corr.1C; H314 Eye Dam.1; H318 Aquatic Chronic3; H412	>= 12,5 - < 20
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2 220-666-8 01-2119514687-32	Acute Tox.4; H302 Acute Tox.4; H312 Skin Corr.1B; H314 Eye Dam.1; H318 Skin Sens.1; H317 Aquatic Chronic3; H412	>= 10 - < 12,5
m-phenylenebis(methylamine)	1477-55-0 216-032-5 01-2119480150-50	Acute Tox.4; H302 Acute Tox.4; H332 Skin Corr.1B; H314 Skin Sens.1B; H317 Aquatic Chronic3; H412	>= 5 - < 7
benzyl alcohol	100-51-6 202-859-9 01-2119492630-38	Acute Tox.4; H302 Acute Tox.4; H332 Eye Irrit.2; H319	>= 3 - < 5
Phenol, styrenated	61788-44-1 262-975-0	Aquatic Chronic2; H411	>= 3 - < 5
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with m-phenylenebis(methylamine)	113930-69-1 01-2119965162-39	Eye Dam.1; H318 Skin Corr.1B; H314 Skin Sens.1; H317 Aquatic Chronic2; H401	>= 1 - < 2,5
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-	38294-64-3	Skin Corr.1B; H314 Eye Dam.1; H318	>= 0,5 - < 1



chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine	01-2119965165-33-0011	Skin Sens.1; H317 Aquatic Chronic3; H412	
salicylic acid	69-72-7 200-712-3 01-2119486984-17	Acute Tox.4; H302 Eye Dam.1; H318 Repr.2; H361d	>= 0,5 - < 1

For explanation of abbreviations see section 16.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

- General advice

: Show this safety data sheet to the doctor in attendance.  
Keep warm and in a quiet place.  
Take off all contaminated clothing immediately.
- If inhaled

: Move to fresh air.  
Keep patient warm and at rest.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.  
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact

: Wash off immediately with soap and plenty of water.  
Do NOT use solvents or thinners.  
If on clothes, remove clothes.  
Burns must be treated by a physician.
- In case of eye contact

: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
If eye irritation persists, consult a specialist.  
If easy to do, remove contact lens, if worn.
- If swallowed

: Do NOT induce vomiting.  
If a person vomits when lying on his back, place him in the recovery position.  
Call a physician immediately.  
Give small amounts of water to drink.

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

- Symptoms

: Burn  
superficial burning sensation  
Redness  
Severe irritation

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

- Treatment

: The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)  
Foam  
Dry powder  
Water mist

Unsuitable extinguishing media : None known.

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

Specific hazards during firefighting : The pressure in sealed containers can increase under the influence of heat.  
Cool closed containers exposed to fire with water spray.  
Hazardous decomposition products formed under fire conditions.

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

Further information : In the event of fire and/or explosion do not breathe fumes.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Immediately evacuate personnel to safe areas.  
Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Refer to protective measures listed in sections 7 and 8.  
Evacuate personnel to safe areas.  
Use personal protective equipment.  
Ensure adequate ventilation.  
Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.

### 6.2 Environmental precautions

Environmental precautions : Do not allow uncontrolled discharge of product into the environment.  
Try to prevent the material from entering drains or water courses.  
Local authorities should be advised if significant spillages cannot be contained.

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

- Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).  
Pick up and transfer to properly labelled containers.

### 6.4 Reference to other sections

For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.  
Do not breathe vapours or spray mist.  
Avoid inhalation, ingestion and contact with skin and eyes.  
Wear personal protective equipment.  
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition.
- Hygiene measures : Provide adequate ventilation. Wash hands and face before breaks and immediately after handling the product.

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

- Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers. To maintain product quality, do not store in heat or direct sunlight.
- Further information on storage conditions : Protect from moisture.
- Advice on common storage : Keep away from isocyanates.  
Do not store near acids.  
Keep away from oxidizing agents.
- Other data : Stable at normal ambient temperature and pressure.

### 7.3 Specific end use(s)

- Specific use(s) : Consult the technical guidelines for the use of this substance/mixture.



**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

Contains no substances with occupational exposure limit values.

**Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:**

benzyl alcohol	: End Use: Workers Exposure routes: Inhalation Potential health effects: Short-term exposure, Systemic effects Value: 450 mg/m3 End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term exposure, Systemic effects Value: 90 mg/m3 End Use: Workers Exposure routes: Skin contact Potential health effects: Short-term exposure, Systemic effects Value: 47 mg/kg End Use: Workers Exposure routes: Skin contact Potential health effects: Long-term exposure, Systemic effects Value: 9,5 mg/kg End Use: Consumers Exposure routes: Ingestion Potential health effects: Short-term exposure, Systemic effects Value: 25 mg/kg End Use: Consumers Exposure routes: Ingestion Potential health effects: Long-term exposure, Systemic effects Value: 5 mg/kg End Use: Consumers Exposure routes: Inhalation Potential health effects: Short-term exposure, Systemic effects Value: 40,55 mg/m3 End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term exposure, Systemic effects Value: 8,11 mg/m3 End Use: Consumers Exposure routes: Skin contact Potential health effects: Short-term exposure, Systemic effects Value: 28,5 mg/kg End Use: Consumers Exposure routes: Skin contact Potential health effects: Long-term exposure, Systemic effects Value: 5,7 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5	: End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 0,493 mg/m3  End Use: Workers



Exposure routes: Dermal  
Potential health effects: Long-term systemic effects  
Value: 0,14 mg/kg  
End Use: Consumers  
Exposure routes: Inhalation  
Potential health effects: Long-term systemic effects  
Value: 0,074 mg/m3  
End Use: Consumers  
Exposure routes: Dermal  
Potential health effects: Long-term systemic effects  
Value: 0,05 mg/m3  
End Use: Consumers  
Exposure routes: Oral  
Potential health effects: Long-term systemic effects  
Value: 0,05 mg/m3

**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:**

benzyl alcohol	: Fresh water Value: 1 mg/l Marine water Value: 0,1 mg/l Fresh water sediment Value: 5,27 mg/kg Marine sediment Value: 0,527 mg/kg Soil Value: 0,456 mg/kg Sewage treatment plant Value: 39 mg/l Intermittent releases Value: 2,3 mg/l
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane, reaction products with 3-aminomethyl- 3,5,5	: Fresh water Value: 0,011 mg/l  Marine water Value: 0,001 mg/l Sewage treatment plant Value: 10 mg/l Fresh water sediment Value: 4320 mg/kg Marine sediment Value: 432 mg/kg Soil Value: 864 mg/kg
3-aminomethyl-3,5,5- trimethylcyclohexylamine	: Fresh water Value: 0,06 mg/l Marine water Value: 0,006 mg/l Intermittent releases Value: 0,23 mg/l Fresh water sediment





Value: 5,784 mg/kg  
Marine sediment  
Value: 0,578 mg/kg  
Sewage treatment plant  
Value: 3,18 mg/l  
Soil  
Value: 1,121 mg/kg

**8.2 Exposure controls**

**Engineering measures**

Effective exhaust ventilation system  
effective ventilation in all processing areas

**Personal protective equipment**

- Eye protection : Safety glasses with side-shields conforming to EN166  
Do not wear contact lenses.  
Ensure that eyewash stations and safety showers are close to the workstation location.
- Hand protection :  
Material : Protective gloves complying with EN 374.  
Remarks : Nitrile rubber
- Skin and body protection : Protective suit  
Recommended preventive skin protection
- Respiratory protection : Use respirator when performing operations involving potential exposure to vapour of the product.  
The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.  
Recommended Filter type:  
ABEK-filter  
Equipment should conform to EN 14387
- Protective measures : Avoid contact with skin.  
Wear suitable protective equipment.

**Environmental exposure controls**

- General advice : Do not allow uncontrolled discharge of product into the environment.  
Try to prevent the material from entering drains or water courses.  
Local authorities should be advised if significant spillages cannot be contained.

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

- Appearance : liquid

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Colour	: amber
Odour	: ammoniacal
Odour Threshold	: not determined
pH	: 11, 1 %
Melting point/freezing point	: Not applicable
Boiling point/boiling range	: > 150 °C
Flash point	: 100 °C
Evaporation rate	: not determined
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: Not applicable
Relative vapour density	: not determined
Density	: 1,015 g/cm <sup>3</sup> (25 °C)
Bulk density	: not determined
Solubility(ies) Solubility in other solvents	: not determined
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: Not applicable
Auto-ignition temperature	: Not applicable
Thermal decomposition	: Method: No data available
Viscosity Viscosity, dynamic	: 350 - 550 mPa.s (25 °C)
Viscosity, kinematic	: not determined
Explosive properties	: Not applicable
Oxidizing properties	: Not applicable

**9.2 Other information**

Surface tension : not determined

Sublimation point : Not applicable

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

Stable under recommended storage conditions.

**10.2 Chemical stability**

No decomposition if stored and applied as directed.

**10.3 Possibility of hazardous reactions**

Hazardous reactions : Reacts with the following substances:  
Acids  
Strong oxidizing agents

**10.4 Conditions to avoid**

Conditions to avoid : No decomposition if used as directed.

**10.5 Incompatible materials**

Materials to avoid : Strong acids  
Strong oxidizing agents

**10.6 Hazardous decomposition products**

Hazardous decomposition products : This product may release the following:  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)

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**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate : 539,16 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 2,28 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 2.000 mg/kg  
Method: Calculation method

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Acute toxicity (other routes of administration) : Remarks: No data available

### Components:

#### **benzyl alcohol:**

Acute inhalation toxicity : LC50 (Rat, male and female): > 4.178 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
GLP: yes

### **Skin corrosion/irritation**

#### Product:

Remarks: No data available

### Components:

#### **benzyl alcohol:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation  
GLP: yes

#### **4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5:**

Species: human skin  
Assessment: Causes burns.  
Method: OECD Test Guideline 431  
Result: Causes burns.  
GLP: yes

### **Serious eye damage/eye irritation**

#### Product:

Remarks: No data available

### Components:

#### **benzyl alcohol:**

Species: Rabbit  
Method: OECD Test Guideline 405  
Result: Eye irritation  
GLP: yes

### **Respiratory or skin sensitisation**

#### Product:

Remarks: No data available

### Components:

**4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5:**

Assessment: May cause sensitisation by skin contact.

**Germ cell mutagenicity****Components:****4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5:**

Genotoxicity in vitro : Test Type: Ames test  
Test species: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
GLP: yes

**Carcinogenicity****Product:**

Remarks: No data available

**Reproductive toxicity****Product:**

Effects on fertility : Remarks: No data available

Remarks: No data available

Effects on foetal development : Remarks: No data available  
Remarks: No data available

**Components:****4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5:**

Effects on foetal development : Test Type: Pre-natal  
Species: Rat  
Strain: Sprague-Dawley  
Application Route: Oral  
General Toxicity Maternal: No observed adverse effect level: 100 mg/kg body weight  
Teratogenicity: No observed adverse effect level: 250 mg/kg body weight  
Developmental Toxicity: No observed adverse effect level: 250 mg/kg body weight  
Embryo-foetal toxicity: No observed adverse effect level: 250 mg/kg body weight  
Method: OECD Test Guideline 414  
GLP: yes

**STOT - single exposure****Product:**

Remarks: No data available

**STOT - repeated exposure****Repeated dose toxicity****Product:**

Remarks: No data available

**Components:****4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5:**

Species: Rat, male and female

NOAEL: 10 mg/kg

LOAEL: 100 mg/kg

Application Route: Oral

Exposure time: 90 d

Method: OECD Test Guideline 408

GLP: yes

Species: Rat, male and female

NOAEL: 30 mg/kg

Application Route: Oral

Exposure time: 28 d

Method: OECD Test Guideline 407

GLP: yes

**Aspiration toxicity****Components:****3-aminomethyl-3,5,5-trimethylcyclohexylamine:**

No aspiration toxicity classification

**Further information****Product:**

Remarks: No data available

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**SECTION 12: Ecological information****12.1 Toxicity****Product:**

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

**Components:****|| 3-aminomethyl-3,5,5-trimethylcyclohexylamine:**

Toxicity to fish	: LC50 (Leuciscus idus (Golden orfe)): 110 mg/l Exposure time: 96 h Test Type: semi-static test Method: Directive 67/548/EEC, Annex V, C.1. GLP: yes
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 23 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae	: ErC50 (Scenedesmus capricornutum (fresh water algae)): > 50 mg/l Exposure time: 72 h Test Type: static test Method: Directive 67/548/EEC, Annex V, C.3. GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 3 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test GLP: yes

**|| benzyl alcohol:**

Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 230 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae	: ErC50 (Pseudokirchneriella subcapitata (green algae)): 770 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes

**|| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5:**

Toxicity to fish	: LL50 (Oncorhynchus mykiss (rainbow trout)): 70,7 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	: EL50 (Daphnia magna (Water flea)): 11,1 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae : EL50 (Pseudokirchneriella subcapitata (green algae)): 79,4 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

Toxicity to bacteria : (activated sludge): > 1.000 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209  
GLP: yes

## 12.2 Persistence and degradability.

### Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

### Components:

#### **|| 3-aminomethyl-3,5,5-trimethylcyclohexylamine:**

Biodegradability : Test Type: aerobic  
Result: Not readily biodegradable.  
Method: Directive 67/548/EEC Annex V, C.4.A.  
GLP: yes

#### **|| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5:**

Biodegradability : Test Type: aerobic  
Inoculum: activated sludge  
Result: Not biodegradable  
Biodegradation: 0 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F  
GLP: yes

## 12.3 Bioaccumulative potential.

### Product:

Bioaccumulation : Remarks: No data available

### Components:

#### **|| 3-aminomethyl-3,5,5-trimethylcyclohexylamine:**

Partition coefficient: n-octanol/water : log Pow: 0,99  
Method: OECD Test Guideline 107  
GLP: yes





**4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5:**

Bioaccumulation	: Species: Fish Bioconcentration factor (BCF): 5,13 Method: estimated
Partition coefficient: n-octanol/water	: log Pow: 3,6 (25 °C) pH: 7 Method: Regulation (EC) No. 440/2008, Annex, A.8 GLP: no

**12.4 Mobility in soil**

**Components:**

**4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5:**

Distribution among environmental compartments	: log Koc: > 5,16 Method: OECD Test Guideline 121
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**12.5 Results of PBT and vPvB assessment**

**Product:**

Assessment	: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..
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**12.6 Other adverse effects**

**Product:**

Further information	: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Additional ecological information	: Remarks: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Product	: In accordance with local and national regulations. Container hazardous when empty. Do not dispose of with domestic refuse. Do not mix waste streams during collection.
Contaminated packaging	: Empty containers should be taken to an approved waste handling site for recycling or disposal.



**SECTION 14: Transport information**

**14.1 UN number**

**ADR/RID/ADN** : UN 2735  
**IMDG** : UN 2735  
**IATA** : UN 2735

**14.2 UN proper shipping name**

**ADR/RID/ADN** : AMINES, LIQUID, CORROSIVE, N.O.S.  
(BADGE-IPDA adduct)  
**IMDG** : AMINES, LIQUID, CORROSIVE, N.O.S.  
(BADGE-IPDA adduct)  
**IATA** : Amines, liquid, corrosive, n.o.s.  
(BADGE-IPDA adduct)

**14.3 Transport hazard class(es)**

**ADR/RID/ADN** : 8  
**IMDG** : 8  
**IATA** : 8

**14.4 Packing group**

**ADR/RID/ADN**  
Packing group : III  
Classification Code : C7  
Hazard Identification Number : 80  
Labels : 8  
Tunnel restriction code : E  
**IMDG**  
Packing group : III  
Labels : 8  
EmS Code : F-A, S-B  
Remarks : IMDG Code segregation group 18 - Alkalis  
**IATA**  
Packing instruction (cargo aircraft) : 856  
Packing instruction (passenger aircraft) : 852  
Packing group : III  
Labels : 8

**14.5 Environmental hazards**

**ADR/RID/ADN**  
Environmentally hazardous : no  
**IMDG**  
Marine pollutant : no



**IATA**

Environmentally hazardous : no

**14.6 Special precautions for user**

Remarks : The transport of dangerous goods, including their loading and unloading, must be done by people who received the necessary training required by Modal Regulations.

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

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**SECTION 15: Regulatory information**

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.  
Not applicable

Other regulations : For the product composition, we do not add any of the substances listed in the European Directive 2011/65/EU (RoHS 2, RoHS 3, and China RoHS).  
The product is thus in line with those directives.  
We do not add Conflict minerals to the product.

**15.2 Chemical safety assessment**

Not applicable

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**SECTION 16: Other information**

Items where relevant changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

**Full text of H-Statements**

H302	: Harmful if swallowed.
H312	: Harmful in contact with skin.
H314	: Causes severe skin burns and eye damage.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H332	: Harmful if inhaled.
H361d	: Suspected of damaging the unborn child.
H401	: Toxic to aquatic life.
H411	: Toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.

**Full text of other abbreviations**

Acute Tox.	: Acute toxicity
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Eye Dam.	: Serious eye damage
Eye Irrit.	: Eye irritation
Repr.	: Reproductive toxicity
Skin Corr.	: Skin corrosion
Skin Sens.	: Skin sensitisation

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; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the 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; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals



Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

Training advice : Provide adequate information, instruction and training for operators.

**Classification of the mixture:**

Acute Tox. 4	H302
Acute Tox. 4	H332
Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
Aquatic Chronic 3	H412

**Classification procedure:**

Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.

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