

Rev. 3 (replaces version 2) Revision: 11.04.2022 Printing date 11.04.2022

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

1.1 Product identifier

· Trade name: Comp B

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

Catalyst for Starlike EVO (comp A)

Application of the substance / the mixture Hardener

· 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

LITOKOL S.p.A. Via G.Falcone, 13/1 42048 Rubiera (RE) - ITALY

Tel. +39 0522 626391 - Fax. +39 0522 620150

· Further information obtainable from: LITOKOL S.p.A. - Email: laboratorio@litokol.it

· 1.4 Emergency telephone number:

ITALY - POISONS CENTRES (24h / 365d):

- Milano Azienda Ospedaliera Niguarda Ca' Granda Tel. +39 02 66101029
- · Pavia Centro Nazionale d'Informazione Tossicologica IRCCS Fondazione Salvatore Maugeri Clinica del Lavoro e della riabilitazione - Tel. +39 0382 24444
- Firenze Azienda Ospedaliera Universitaria "Careggi" U.O. Tossicologia Medica Tel. +39 055 7947819
- Bergamo Azienda Ospedaliera "Papa Giovanni XXIII", tossicologia clinica Tel. +39 800 883300
- Roma CAV Policlinico "Umberto I", PRGM tossicología d'urgenza Tel. 06 49978000
- Roma CAV del Policlinico "Agostino Gemelli", Servizio di tossicologia clinica Tel. 06 3054343
- Roma CAV "Ospedale Pediatrico Bambino Gesù", dipartimento emergenza e accettazione DEA Tel. +39 06 68593726
- Foggia Azienda Ospedaliera Universitaria riuniti, Foggia Tel. +39 800 183459
 Napoli Azienda Ospedaliera "Antonio Cardarelli", III Servizio di anestesia e rianimazione Tel. +39 081 5453333
 Verona CAV dell'Azienda ospedaliera integrata (AOUI) di Verona sede di Borgo Trento Tel. 800 011858

LITOKOL S.p.A.

Technical support: Tel. +39 0522 622852 (Monday - Friday: 8.30-12.30 AM, 2.00-6.00 PM)

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

H319 Causes serious eve irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

· 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



- · Signal word Warning
- · Hazard-determining components of labelling:

TEPA polymer adduct

3-aminomethyl-3,5,5-trimethylcyclohexylamine

· Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

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H335 May cause respiratory irritation.

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· Precautionary statements

P102 Keep out of reach of children.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P305+P351+P338 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. P310 P363 Wash contaminated clothing before reuse.

2.3 Other hazards

Results of PBT and vPvB assessment

· PBT: Not applicable. · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

CAS: 117317-22-3	TEPA polymer adduct	≥94-<98%
EC number: 852-593-8	♦ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1A, H317; STOT SE 3, H335	
CAS: 2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	≥1-<1.5%
EINECS: 220-666-8	♦ Skin Corr. 1B, H314; Eye Dam. 1, H318; ♦ Acute Tox. 4, H302; Skin	11
ndex number: 612-067-00-9	Sens. 1A, H317	
Reg.nr.: 01-2119514687-32-XXXX		
	Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.001 %	
CAS: 9046-10-0	Polyetheramine	≥1-<1.5%
EC number: 618-561-0 Reg.nr.: 01-2119557899-12-XXXX	Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Chronic 3, H412	

[·] Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

Protect unharmed eye.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

- · 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- · Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.

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5.3 Advice for firefighters

· Protective equipment:

Wear fully protective suit.

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

· Additional information

Cool endangered receptacles with water spray.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

· 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Pick up mechanically.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Use only in well ventilated areas.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

- · Storage:
- Requirements to be met by storerooms and receptacles:

Store in a cool location.

Store only in the original receptacle.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Store receptacle in a well ventilated area.

Keep container tightly sealed.

Protect from heat and direct sunlight.

Protect from frost.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

CAS: 2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

MAK (Germany) als Dampf und Aerosol;vgl.Abschn.llb

Regulatory information MAK (Germany): MAK- und BAT-Liste

DNELs

CAS: 2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Oral DNEL / Long term exposure - Systemic effects | 0.526 mg/Kg bw/d (general population)

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de name: C	Comp B		
			(Contd. of page
Inhalative	DNEL /	Long term exposure - Local effects	0.073 mg/m³ (workers)
	DNEL /	Short term exposure - Local effects	0.073 mg/m³ (workers)
CAS: 9046	6-10-0 F	Polyetheramine	
Dermal	DNEL /	Long term exposure - Systemic effects	2.5 mg/Kg bw/d (workers)
Inhalative	DNEL /	Long term exposure - Systemic effects	10.58 mg/m³ (workers)
PNECs			
CAS: 2855	5-13-2 3	-aminomethyl-3,5,5-trimethylcyclohe	xylamine
PNEC / aq	ıua	0.06 mg/l (freshwater)	
		0.23 mg/l (intermittent releases)	
		0.006 mg/l (marine water)	
PNEC / sec	diment	5.784 mg/Kg dw (freshwater)	
		0.578 mg/Kg dw (marine water)	
PNEC / soi	il	1.121 mg/Kg dw	
PNEC / ST	ΓP	3.18 mg/l (sewage treatment plant)	
CAS: 9046	6-10-0 F	Polyetheramine	
PNEC / aq	ıua	0.015 mg/l (freshwater)	
		0.15 mg/l (intermittent releases)	
		0.0142 mg/l (marine water)	
PNEC / sec	diment	0.132 mg/Kg dw (freshwater)	
		0.125 mg/Kg dw (marine water)	
PNEC / soi	il	0.0176 mg/Kg dw	
PNEC / ST	ΓP	7.5 mg/l (sewage treatment plant)	

· Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

- · Appropriate engineering controls No further data; see item 7.
- Individual protection measures, such as personal protective equipment
 - · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Do not eat or drink while working.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Ensure that washing facilities are available at the work place.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Short term filter device:

Filter A

· Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Rubber gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. Value for the permeation: Level > 2

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· Eye/face protection

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Tightly sealed goggles

- Body protection: Light weight protective clothing

SECTION 9: Physical and chemical properties

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9.1 Information on basic physical and chemical properties	S
General Information	
Physical state	Fluid
· Colour:	Yellow
· Odour:	Amine-like
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range	180 °C
	Product is not flammable.
Flammability	Product is not naminable.
· Lower and upper explosion limit	
: Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	130 °C
Decomposition temperature:	Not applicable.
· pH	Not determined.
· Viscosity:	
Kinematic viscosity	Not determined.
Dynamic at 25 °C:	2500 mPas
Solubility	2000 1111 40
· water:	Not miscible or difficult to mix.
Partition coefficient n-octanol/water (log value)	Not applicable.
Vapour pressure:	Not determined.
Density and/or relative density	
Density at 20 °C:	0.98 g/cm³
· Relative density	Not determined.
· Vapour density	Not determined.
9.2 Other information	
Appearance:	
Form:	Liquid
Important information on protection of health and	Liquid
environment, and on safety.	Description of the Control of the Co
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· VOC (EC)	0.00 %
· Change in condition	
· Evaporation rate	Not determined.
Information with regard to physical hazard classes	
	Void
Explosives	Void
Flammable gases	
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
· Flammable solids	Void
Self-reactive substances and mixtures	Void
· Pyrophoric liquids	
	Void
· Pyrophoric solids	Void Void
Pyrophoric solids Self-heating substances and mixtures	

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· Substances and mixtures, which emit fla	ammable gases	
in contact with water	Void	
Oxidising liquids	Void	
· Oxidising solids	Void	
· Organic peroxides	Void	
Corrosive to metals	Void	
Desensitised explosives	Void	

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid Keep ignition sources away Do not smoke.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC	50 values r	elevant for classification:
CAS: 285	5-13-2 3-an	ninomethyl-3,5,5-trimethylcyclohexylamine
Oral	LD50	1,030 mg/kg (ATE)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50 / 4h	>5.01 mg/m³ (rat)
CAS: 904	6-10-0 Poly	vetheramine
Oral	LD50	2,885 mg/kg (rat)
Dermal	LD50	2,980 mg/kg (rabbit)
Inhalative	LC50 / 8h	>0.74 mg/m³ (rat)

- · Skin corrosion/irritation
- Causes skin irritation.
- · Serious eye damage/irritation

Causes serious eye irritation.

· Respiratory or skin sensitisation

May cause an allergic skin reaction.

- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure

May cause respiratory irritation.

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- 11.2 Information on other hazards
- · Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity:

No further relevant information available.

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CAS: 2855-1	13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine	
EC50 / 48h	23 mg/l (crustacea - Daphnia magna)	
LC50 / 96h	110 mg/l (fish)	
EC50 / 72h	>50 mg/l (algae - Desmodesmus subspicatus)	
CAS: 9046-1	0-0 Polyetheramine	
EC50 / 48h	80 mg/l (crustacea - Daphnia magna)	
LC50 / 96h	15 mg/l (fish)	
EC50 / 72h	15 mg/l (algae)	
EC50 / 96h	15 mg/l (fish)	
NOEC / 96h	15-600 mg/l (fish)	

- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- 12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.
- 12.7 Other adverse effects
- · Additional ecological information:
- · General notes:

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Also poisonous for fish and plankton in water bodies.

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Disposal must be made according to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
 - Recommendation: Disposal must be made according to official regulations.

14.1 UN number or ID number		
· ADR, IMDG, IATA	Void	
14.2 UN proper shipping name · ADR, IMDG, IATA	Void	
14.3 Transport hazard class(es)		
ADR, ADN, IMDG, IATA		
· Class	Void	
14.4 Packing group		
· ADR, IMDG, IATA	Void	
14.5 Environmental hazards:	Not applicable.	
14.6 Special precautions for user	Not applicable.	
14.7 Maritime transport in bulk according	to IMO	
instruments	Not applicable.	

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· UN "Model Regulation":

Void

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Regulation (EC) No 1907/2006 (REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals) Regulation (EC) No 1272/2008 (CLP - Classification, Labelling and Packaging of substances and mixtures) Compilation of Safety Data Sheet: Reg.UE n. 878/2020 (amending Reg.EC n.1907/2006, Annex II)

- REACH
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- Directive 2012/18/EU
- Named dangerous substances ANNEX I None of the ingredients is listed.
- REGULATION (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

REGULATION (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

- REGULATION (EU) 2019/1148
 - Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

· Classification according to Regulation (EC) No 1272/2008

Skin corrosion/irritation

Serious eye damage/eye irritation

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

Skin sensitisation

Specific target organ toxicity (single exposure)

- · Contact: LITOKOL S.p.A.
- · Version number of previous version: 2
- Abbreviations and acronyms:

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

CLP: Classification, Labelling and Packaging

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

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Safety data sheet according to 1907/2006/EC, Article 31

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LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity — Category 4
Skin Corr. 1B: Skin corrosion/irritation — Category 1B
Skin Corr. 1C: Skin corrosion/irritation — Category 1C
Skin Irrit. 2: Skin corrosion/irritation — Category 2
Eye Dam. 1: Serious eye damage/eye irritation — Category 1
Eye Irrit. 2: Serious eye damage/eye irritation — Category 2
Skin Sens. 1: Skin sensitisation — Category 2

Skin Sens. 1: Skin sensitisation – Category 1 Skin Sens. 1A: Skin sensitisation – Category 1A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

* Data compared to the previous version altered.