



SAFETY DATA SHEET
CYCLO® BATTERY PROTECTOR

According to Regulation (EC) No 1907/2006

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

1.1. Product identifier

Product name CYCLO® BATTERY PROTECTOR
Product No. C121

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

Identified uses Sealant protector for batteries.

1.3. Details of the supplier of the safety data sheet

Supplier Tri Continental
Streliska 150/A
2000 Maribor,
Slovenia
011 386 2 3200100
E mail Address ehs@cyclo.com

1.4. Emergency telephone number

001 312 906 6194

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Flam. Aerosol 1 - H222+H229
Human health	Skin Irrit. 2 - H315; Repr. 2 - H361d; STOT RE 2 - H373
Environment	Not classified.

Classification (1999/45/EEC)

Xn; R48/20, R65. Repr. Cat. 3; R63. F+; R12.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Human health

Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Inhalation of vapour or mist may cause lung oedema.

Environment

The product contains a substance which is harmful to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

Physical and Chemical Hazards

Aerosol containers can explode when heated, due to excessive pressure build-up. The product is extremely flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures.

2.2. Label elements

Contains TOLUENE

Label In Accordance With (EC) No. 1272/2008

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Signal Word	Danger	
Hazard Statements	H222+H229	Extremely flammable aerosol.
	H315	Pressurized container: May burst if heated.
	H361d	Causes skin irritation.
	H373	Suspected of damaging the unborn child.
		May cause damage to organs through prolonged or repeated exposure.
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.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P211	Do not spray on an open flame or other ignition source.
	P251	Pressurized container: Do not pierce or burn, even after use.
	P308+313	IF exposed or concerned: Get medical advice/attention.
	P410+412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
	P501	Dispose of contents/container in accordance with international regulations.
Supplementary Precautionary Statements	P202	Do not handle until all safety precautions have been read and understood.
	P260	Do not breathe vapour/spray.
	P264	Wash contaminated skin thoroughly after handling.
	P321	Specific treatment (see medical advice on this label).
	P332+313	If skin irritation occurs: Get medical advice/attention.
	P362	Take off contaminated clothing and wash before reuse.
	P405	Store locked up.

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures**

STODDARD SOLVENT (<0.1% BENZENE)		10-30%
CAS-No.: 8052-41-3	EC No.: 232-489-3	
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Asp. Tox. 1 - H304	Classification (67/548/EEC) Xn;R65. R10.	
BUTANE		10-30%
CAS-No.: 106-97-8	EC No.: 203-448-7	
Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12	

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TOLUENE		10-30%
CAS-No.: 108-88-3	EC No.: 203-625-9	
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Repr. 2 - H361d STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304	Classification (67/548/EEC) F;R11 Repr. Cat. 3;R63 Xn;R48/20,R65 Xi;R38 R67	
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC		5-10%
CAS-No.: 64742-89-8	EC No.: 265-192-2	
Classification (EC 1272/2008) Asp. Tox. 1 - H304	Classification (67/548/EEC) Xn;R65.	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues. NOTE! Keep affected person away from heat, sparks and flames!

Inhalation

Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention if any discomfort continues.

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

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

General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation

Congestion of the lungs may occur producing severe shortness of breath.

Ingestion

May cause stomach pain or vomiting.

Skin contact

Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

Eye contact

Prolonged contact may cause redness and/or tearing.

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

Treat Symptomatically.

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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Use: Water spray, foam, dry powder or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards

Aerosol cans may explode in a fire. Vapours are heavier than air and may spread near ground to sources of ignition.

Specific hazards

Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂).

5.3. Advice for firefighters

Special Fire Fighting Procedures

Containers close to fire should be removed immediately or cooled with water. Use water to keep fire exposed containers cool and disperse vapours. Keep run-off water out of sewers and water sources. Dike for water control.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Avoid discharge to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb in vermiculite, dry sand or earth and place into containers. Provide ventilation and confine spill. Do not allow runoff to sewer.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Provide good ventilation. Avoid inhalation of vapours and spray mists. Persons with impaired lung functions should not handle this preparation. Keep away from heat, sparks and open flame. Pregnant women should not work with the product, if there is the least risk of exposure.

7.2. Conditions for safe storage, including any incompatibilities

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Do not store near heat sources or expose to high temperatures.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

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Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
BUTANE	WEL	600 ppm	1450 mg/m ³	750 ppm	1810 mg/m ³	
TOLUENE	WEL	50 ppm	191 mg/m ³	100 ppm	384 mg/m ³	Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through skin.

8.2. Exposure controls

Protective equipment



Engineering measures

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

Respiratory equipment

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit. In case of inadequate ventilation use suitable respirator. Chemical respirator with organic vapour cartridge.

Hand protection

Use suitable protective gloves if risk of skin contact. Use protective gloves made of: Viton rubber (fluor rubber).

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Solubility	Slightly soluble in water.
Initial boiling point and boiling range (°C)	(-42.2°C)-(-190°C)
Melting point (°C)	Not available.
Relative density	0.71 @ 20 (°C)
Bulk Density	Not available.
Vapour density (air=1)	>1
Vapour pressure	Not available.
Evaporation rate	Not available.
Evaporation Factor	Not available.
pH-Value, Conc. Solution	Not available.
pH-Value, Diluted Solution	Not available.
Viscosity	Not available.

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Solubility Value (G/100G H₂O@20°C)

Not available.

Decomposition temperature (°C)

Not available.

Odour Threshold, Lower

Not available.

Odour Threshold, Upper

Not available.

Flash point (°C) -104°C

Auto Ignition Temperature (°C)

Not available.

Flammability Limit - Lower(%) 0.7

Flammability Limit - Upper(%) 9.5

Partition Coefficient (N-Octanol/Water)

Not available.

Comments Information given concerns the concentrated solution.

9.2. Other information

Not known.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid exposing aerosol containers to high temperatures or direct sunlight. Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances.

10.6. Hazardous decomposition products

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Other Health Effects

Toxic to Reproductive Health Category 3.

Inhalation

Harmful: danger of serious damage to health by prolonged exposure through inhalation. Prolonged inhalation of high concentrations may damage respiratory system.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting.

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Skin contact

Liquid may irritate skin.

Eye contact

Spray and vapour in the eyes may cause irritation and smarting.

Health Warnings

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

Route of entry

Inhalation.

Specific effects

Contains a substance/a group of substances which may cause harm to the unborn child.

Toxicological information on ingredients.

CYCLO® BATTERY PROTECTOR
TOLUENE (CAS: 108-88-3)

Acute toxicity:**Acute Toxicity (Oral LD50)**

> 5000 mg/kg Rat

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity (Dermal LD50)

> 5000 mg/kg Rabbit

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity (Inhalation LC50)

28.1 mg/L air Rat 4 hours

REACH dossier information

Based on available data the classification criteria are not met.

Skin Corrosion/Irritation:**Dose**

Rabbit

Erythema/Eschar score

Well defined erythema (2).

Oedema score

Very slight oedema -barely perceptible (1).

Estimated Value REACH dossier information

Irritating.

Serious eye damage/irritation:

Not Irritating.

Respiratory or skin sensitisation:**Respiratory sensitisation**

Data lacking.

REACH dossier information

Conclusive data but not sufficient for classification.

Skin sensitisation

Guinea pig maximization test (GPMT): Guinea Pig

REACH dossier information

Not Sensitising.

Germ cell mutagenicity:**Genotoxicity - In Vitro**

Gene Mutation:

REACH dossier information

Negative.

This substance has no evidence of mutagenic properties.

Genotoxicity - In Vivo

Chromosome aberration:

REACH dossier information

Negative.

Carcinogenicity:**Carcinogenicity**

NOAEC 1200 ppm Inhalation. Rat

REACH dossier information

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No evidence of carcinogenicity in animal studies

Reproductive Toxicity:

Reproductive Toxicity - Fertility

Two-generation study: NOAEC 500 ppm Inhalation. Rat F1

REACH dossier information

Reproductive Toxicity - Development

Developmental toxicity: NOAEC 600 ppm Inhalation. Rat

REACH dossier information

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

LOAEC 625 ppm Inhalation. Rat

REACH dossier information

Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard:

Viscosity

Kinematic viscosity <= 20.5 mm²/s.

REACH dossier information

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product contains a substance which is harmful to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

12.1. Toxicity

Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

Acute Toxicity - Fish

LC50 96 hours 5.5 mg/l Freshwater fish

REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 3.78 mg/l Freshwater invertebrates

REACH dossier information

Acute Toxicity - Aquatic Plants

EC50 3 hours 134 mg/l Freshwater algae

REACH dossier information

Acute Toxicity - Microorganisms

IC50 24 hours 84 mg/l Activated sludge

REACH dossier information

Acute Toxicity - Terrestrial

NOEC 28 days < 50 mg/kg Soil Microorganisms

Estimated Value REACH dossier information

12.2. Persistence and degradability

Degradability

The degradability of the product has not been stated.

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Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

Degradability

The product is biodegradable.

Phototransformation

Air. DT50 2.59 days

Estimated Value REACH dossier information

Stability (Hydrolysis)

Scientifically unjustified.

REACH dossier information

Biodegradation

Degradation (69%) ~ 5 days

Estimated Value REACH dossier information

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

Partition coefficient

Not available.

Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

Bioaccumulative potential

Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

Bioaccumulation factor

BCF 90 Freshwater fish

REACH dossier information

Partition coefficient

log Pow 2.73

REACH dossier information

12.4. Mobility in soil

Mobility:

The product is partly soluble in water. May spread in the aquatic environment.

Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

Mobility:

Volatile

Adsorption/Desorption Coefficient

Soil Koc < 120

Estimated Value REACH dossier information

Surface tension

27.73 mN/m @ 25°C

Estimated Value REACH dossier information

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

Ecological information on ingredients.

TOLUENE (CAS: 108-88-3)

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

None known.

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Ecological information on ingredients.TOLUENE (CAS: 108-88-3)

None known.

SECTION 13: DISPOSAL CONSIDERATIONS**General information**

When handling waste, consideration should be made to the safety precautions applying to handling of the product. Do not puncture or incinerate even when empty.

13.1. Waste treatment methods

Make sure containers are empty before discarding (explosion risk). Empty containers must not be burned because of explosion hazard. Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION**14.1. UN number**

UN No. (ADR/RID/ADN)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950

14.2. UN proper shipping name

Proper Shipping Name AEROSOLS

14.3. Transport hazard class(es)

ADR/RID/ADN Class	2
ADR/RID/ADN Class	Class 2: Gases
ADR Label No.	2.1
IMDG Class	2.1
ICAO Class/Division	2.1
Transport Labels	

**14.4. Packing group**

ADR/RID/ADN Packing group	N/A
IMDG Packing group	N/A
ICAO Packing group	N/A

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

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EMS F-D, S-U

Tunnel Restriction Code (D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not relevant No information required.

SECTION 15: REGULATORY INFORMATION

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

EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

National Regulations

Workplace Exposure Limits 2005 (EH40) The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date October 2013

Revision 2

Supersedes date July 2012

Date October 2010

Risk Phrases In Full

R12 Extremely flammable.
 R10 Flammable.
 R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 R65 Harmful: may cause lung damage if swallowed.
 R11 Highly flammable
 R38 Irritating to skin.
 R63 Possible risk of harm to the unborn child.
 R67 Vapours may cause drowsiness and dizziness.

Hazard Statements In Full

H220 Extremely flammable gas.
 H222+H229 Extremely flammable aerosol.
 Pressurised container: May burst if heated.
 H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H336 May cause drowsiness or dizziness.
 H361d Suspected of damaging the unborn child.
 H373 May cause damage to organs <<Organs>> through prolonged or repeated exposure.

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