

Material Safety Data Sheet

In accordance with Regulation (UE) no 2015/830, amending Regulation (UE) no 1907/2006 (REACH).

Version: 2.1

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Purios FR

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

1.1. Product identifier:

PuriosFR

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

Purios FR is two component system the production of polyurethane semi-rigid foam

1.3. Details of the supplier of the safety data sheet

Purinova Sp. z o. o.

85 -825 Bydgoszcz ul. Wojska Polskiego 65

tel. 52 561 67 10 fax. 52 561 67 11

E-mail: sds@purinova.com

1.4. Emergency telephone number

112 – emergency number

SECTION 2: Hazard identification:

2.1. Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008

Acute Tox. 4 H302 Harmful if swallowed.

Eye Dam. 1 H318 Causes serious eye damage.

Skin Irrit. 2 H315 Causes skin irritation.

2.2. Label elements



DANGER

Hazard Statement

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H315 Causes skin irritation.

Precautionary Statement

Prevention

P264 Wash hand thoroughly after handling.

P280 Wash hands thoroughly after use

P270 Do not eat, drink or smoke when using the product

P273 Avoid release to the environment

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313 In case of skin irritation, seek advice / attention physician care

P501 Dispose of contents / container to properly labeled containers for selective collection of waste emptied by an authorized company

2.3. Other hazards

The substance does not fulfil the PBT criteria (not PBT) and not the vPvB criteria (not vPvB).

SECTION 3: Composition and information on ingredients

3.2. Mixtures

Dangerous substances	WE no.	CAS no.	Registration no.	Content [mass %]	Classification (UE) no 1272/2008
Halogenated polyetherpolyol	-	68441-62-3	01-2119533103-55-0000	≤ 33	Acute Tox. 4, H302 Eye Irrit. 2, H319
Tris(2-chloro-1-methylethyl)phosphate-multiconstituent substance	911-815-4	-	01-2119486772-26-xxxx	≤ 13	Acute Tox. 4 H302
Bis(2-dimetyloaminoethylo)ether	221-220-5	3033-62-3	01-2119972935-21	≤ 3,5	Skin Corr. 1B H314 Acute Tox. 4 H332, H312, H302 Aquatic Chronic 3 H412
Dimethylaminoethoxyethanol	216-940-1	1704-62-7	01-2119976346-26	≤ 1,9	Skin Corr. 1B H314

Other components are not classified as hazardous.

SECTION 4: First aid measures

4.1. Description of first aid measures

Contact by inhalation

Inhalation of vapors - in normal use, there is no risk of harm to the respiratory system. If swallowed, rinse mouth and give plenty of water to drink. With long-term exposure to the product if you feel unwell, move to fresh air. If necessary, provide medical attention.

Skin contact

In case of contact with skin, remove contaminated cloth and wash skin with soap and water. Don't use solvents for this. In case of skin irritation provide medical attention.

Eye contact

In case of contact with eyes, arrange medical care, and by the time of arrival, immediately rinse for at least 15 minutes with plenty of cool fresh water (avoid strong flux due to the risk of mechanical damage to the cornea).

Note: people exposed to the contamination of eyes must be instructed on the necessity and method of immediate washing.

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

Inhalation

High vapour concentration of the heated product can cause mild irritation of air passages.

Skin contact

Prolonged contact can cause drying and mild skin irritation.

Eye contact

Liquid splashed into the eye may cause tearing, moderate irritation with prolonged contact

Ingestion

Can cause gastrointestinal disorders, central nervous system disorders, liver or kidney damage.

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

Symptomatic treatment. If swallowed, contact medical immediately and show the material safety data sheet.

SECTION 5: Firefighting measures.

5.1. Extinguishing media

Product is not classified as combustible.

Recommended extinguishing media: carbon dioxide, dry chemical, foam.

5.2. Special hazards arising from the substance or mixture

Fire may produce dense smoke containing hazardous products of combustion - carbon and nitrogen oxides. Do not enter fire area without proper protection. Extinguish a fire from a safe distance. May be required safety equipment inhalation.

5.3. Advice for firefighters

Fire may produce dense smoke containing hazardous products of combustion - carbon and nitrogen oxides.. Incomplete combustion may lead to the formation of toxic pyrolysis products.

Personal protective equipment: helmet, face shield and neck, breathing apparatus, fire jacket and pants with stripes on arms, legs and waist, neoprene gloves.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures:

Respiratory protection: When exposed to dangerous / unknown concentrations of vapors / mists and / or insufficient ventilation, wear an approved respirator with filter type A

Hand protection: Protective gloves resistant to the product - eg., neoprene, nitrile

Body protection: protective clothing coated fabric, protective shoes.

Eye protection: goggles in a sealed enclosure (goggles) for activities involving the risk of splashing into the eye.

Sprinkle a slippery substrate with a layer of granular material or an absorption agent. Store the absorbents accordance with the applicable regulations.

6.2 Environmental precautions:

Secure the spill site. Prevent spills from entering municipal sewers, ground and surface waters.

6.3. Methods and material for containment and cleaning up

Collect spilt product covered with absorbent agent (e.g. sand, diatomaceous earth) with a shovel into tight containers. In the event of a major accident, the chemical rescue service and the competent environmental authority should be notified.

6.4. Reference to other sections

Section 8 – personal protection

Section 9 – chemical and physical properties

Section 13 – disposal

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid prolonged contact with skin; Avoid contact with eyes; Avoid inhalation of vapors / mists. Use with adequate ventilation. Unused containers to hold closed. Once opened, containers should be closed again and kept upright to prevent leakage.

Do not eat, drink or smoke in the workplace. Wash hands with soap and water after use. Do not use contaminated clothing

7.2. Conditions for safe storage, including any incompatibilities:

Store in a tightly closed container in a well ventilated area. Keep away from moisture. Store at 15°C - 25°C. Contents of damaged or leaking containers pour into corrosion-resistant packaging.

7.3. Specific end uses

Use this product only in accordance with the application.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Limit values according current national regulations on the maximum permissible concentrations and intensities of harmful factors in the work environment.

• **Bis (2-dimethylaminoethyl) ether CAS: 3033-62-3**

Country	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Belgium	0,05	0,33	0,15	1
Canada - Ontario	0,05	-	0,15	-

8.2. Exposure controls

Technical means of collective protection: Ventilation

Appropriate personal protective equipment:

Respiratory Protection: Under normal conditions, with adequate ventilation is not required. When exposed to dangerous / unknown concentrations of vapors / mists and / or insufficient ventilation, wear an approved respirator with filter type A.

Protection of hands: Protective gloves resistant to the product - e.g., neoprene, nitrile.

Body protection: Apron or protective clothing of coated fabrics, protective boots.

Eye protection: Safety glasses in a sealed enclosure (goggles) for activities involving the risk of splashing into the eye.

Environmental exposure controls: Avoid seepage into the groundwater and drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical appearance	Liquid, color from yellow to brown
Odour	Irritant
Odour threshold	No data available
pH value	No data available
Melting / freezing point	No data available
Boiling point / boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid state, gas)	Supporting combustion
Upper / lower flammability / explosion	No data available
Oxidizing properties	Not applicable
Vapour pressure	No data available
Vapour density	No data available
Relative density	1.1 – 1.2 g/cm ³ (25°C)
Solubility	insoluble in water, soluble in acetone and ethyl acetate
Partition coefficient n-octanol / water	No data available
Viscosity	300 – 550 mPas (25°C)
Auto-ignition temperature	No data available
Decomposition temperature	No data available

9.2. Other information.

No data

SECTION 10: Stability and reactivity

10.1. Reactivity

Slightly chemically reactive substance

10.2. Chemical stability

Hygroscopic substance.

10.3. Possibility of hazardous reactions

Not applicable.

10.4. Conditions to avoid

Not applicable

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

During a fire, a dangerous carbon oxides form.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

No experimental toxicological data on the mixture. The health hazard assessment refer to the calculation methods and available data on the ingredients.

- **Tris(2-chloro-1-methylethyl)phosphate- multiconstituent substance (TCPP)**

Acute toxicity

Parameter	Route of exposure	Value	Species
LD50	Oral	500 - 2000 mg/kg	Rat
LD50	Skin	>2000 mg/kg	Rat, Rabbit
LC50	Inhalation	>5 mg/l	Rat

- **Bis (2-dimethylaminoethyl) ether**

Parameter	Route of exposure	Value	Species
LD50	Oral	677 mg/kg	Rat
LD50	Skin	0,373 ml/kg 0,406 ml/kg	Rabbit
LC50	Inhalation	>2204 mg/l	Rat

Serious eye damage / irritation

Causes serious eye damage.

Skin corrosion / irritation

Causes skin irritation.

Irritation to the respiratory tract

No data.

Sensitisation

There is no evidence of sensitization by inhalation and skin.

Mutagenic effect on reproductive cells

Not mutagenic.

Carcinogenicity

Not classified as carcinogenic acting.

Reproductive toxicity

Not classified as toxic for reproduction.

Toxic effects on target organs (STOT)

Not classified as an operating target organ toxicity.

SECTION 12: Ecological information

No experimental toxicological data on the mixture. The health hazard assessment refer to the calculation methods and available data on the ingredients

12.1 Toxicity

- **Tris(2-chloro-1-methylethyl)phosphate- multiconstituent substance (TCPP)**

	Parameter	Value	Species
Fish	LC50	51 mg/l, 96h 56,2 mg/l, 96h	Pimeohales promela Brachydanio rerio
Algae and aquatic plants	LC50 NOEC	82 mg/l, 72h 13 mg/l, 3d	Pseudokirchneriella subcapitata
Aquatic invertebrates	LC50 NOEC	65 - 335 mg/l, 48h 32 mg/l, 21d	Daphnia magna

12.2. Persistence and degradability

No data.

12.3. Bioaccumulative potential

No data.

12.4. Mobility in soil

No data.

12.5. Results of PBT and vPvB

It does not meet the criteria for PBT and vPvB.

12.6. Other adverse effects

No data

SECTION 13: Disposal consideration

13.1. Waste treatment methods

13.1.1. Classification of formulation / packaging:

Product:

Due to the classification of the preparation as dangerous (see section 2), waste constituting the residue should be classified as hazardous.

Package:

Packages containing product should be treated as hazardous packaging.

Finished product:

Wastes that are remnants of the finished product - foam does not constitute hazardous waste.

13.1.2. Treatment / Disposal:

Processing and disposal of waste should be in accordance with the applicable national law and European law¹⁾.

13.1.3. Sewage:

Waste, even in small amounts, should not be discharged into sewage, wastewater or water.

13.1.4. Other recommendations

Waste management should be in accordance with the applicable national law and European law¹⁾.

Waste resulting from the use of the product must be submitted by approved waste for recovery or disposal.

The obligation to correct handling of waste imposed on the manufacturer.

¹⁾ If the buyer is subject to the European Union.

SECTION 14: Transport Information

14.1. UN (ONZ) number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class:

It is not considered dangerous according to the provisions set forth in the transport rules IMO, ADR / RID, ICAO.

14.4. Packing group

It is not considered dangerous according to the provisions set forth in the transport rules IMO, ADR / RID, ICAO.

14.5. Environmental hazard

It is not considered dangerous according to the provisions set forth in the transport rules IMO, ADR / RID, ICAO.

14.6. 14.6 Special precautions for user

It is not considered dangerous according to the provisions set forth in the transport rules IMO, ADR / RID, ICAO.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

It is not considered dangerous according to the provisions set forth in the transport rules IMO, ADR / RID, ICAO.

SECTION 15: Regulatory information.

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

Legal framework for all EU Member States:

- 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,

- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008. On classification, labeling and packaging of substances and mixtures (CLP), amending and repealing Directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) No 1907/2006.
- Regulation (EU) No 453/2010 of the Commission of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
- Commission Regulation (EU) No 2015/830 of 28 May 2015. Amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
- Regulation (EC) nr 649/2012 of the European Parliament and of the Council of 4 July 2012. Concerning the export and import of dangerous chemicals
- ADR

Important legal acts in force in Poland:

- The Act of 25 February 2011 on chemical substances and mixtures (Dz. U. 2018 pos. 143)
- Regulation of the Minister of Health on 20 April 2012. On labeling of hazardous substances and mixtures, and certain mixtures (Dz. U. 2015, pos. 450)
- Regulation of the Minister of Health of 25 August 2015. On the method of marking of places, pipelines, containers and tanks used for storing or containing hazardous substances or mixtures of hazardous (Dz. U. 2015 pos. 1368)
- Regulation of the Minister of Health of 10 August 2012. On the criteria and classification of chemical substances and mixtures (Dz. U. 2015 pos.208)
- The Act of 19 August 2011. On the transport of dangerous goods (Dz. U. 2018 pos.169)
- Regulation of the Ministry of Labour and Social Policy of 12 June 2018. On the maximum allowable concentrations and intensity of harmful factors in the work environment (Dz. U. 2018 pos. 1286)

15.2. Chemical safety assessment

Not applicable

SECTION 16: Other information

The information contained in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless it is specified in the text.

Full text of warning phrases from Section 3:

H332 – Harmful if inhaled

H311 – Toxic in contact with skin

H412 – Harmful to aquatic life with long lasting effects.

Changes from the previous version: section 11, 12, 15.

End of Safety Data Sheet

