Material Safety Data Sheet

In accordance with Regulation (EC) No. 1907/2006 (REACH) and Annex II of the above-mentioned Regulations, as amended.

Purios HO

Version: 4.1 EN

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

1.1. Product identifier:

Purios HO

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

Industrial use.

Purios HO is two component system used for producing thermal-insulating polyurethane spraying rigid foam.

1.3. Details of the supplier of the safety data sheet

Purinova Sp. z o. o.
85 -719 Bydgoszcz ul. Fordońska 74
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

Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
Acute Tox. 4 H302 Harmful if swallowed.

2.2. Label elements

DANGER

Hazard Statement

H315 Causes skin irritation.
H318 Causes serious eye damage.
H302 Harmful if swallowed.

Precautionary Statement

Prevention
P264 Wash hand thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
Response
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352: IF ON SKIN: Wash with plenty of 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.

2.3. Other hazards

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

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It does not contain substances with endocrine disrupting properties.

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
Tris(2-chloro-1-methylethyl)phosphate-multiconstituent substance	911-815-4	-	01-2119486772-26-xxxx	≤ 28	Acute Tox. 4 H302
N,N-bis[3dimetyloamino)propylo]-N',N'-dimethylo-propane-1,3-diamine	251-459-0	33329-35-0	01-2119985661-27-xxxx	≤ 2	Acute Tox. Derm. 4 H312 Skin Corr. 1B H314 Aquatic Chronic 3 H412
Bis(2dimethyloaminoethylo)methylo-amine	221-201-1	3030-47-5	01-2119979537-18-xxxx	≤ 2,5	Acute Tox. Derm. 3 H311 Acute Tox. Oral 4 H302 Skin Corr 1B H314 Acute Tox.Inha 3 H331 Aquatic Chronic 3 H412
Diethylene glycol	203-872-2	111-46-6	01-2119457857-21-xxxx	≤ 0,4	Acute Tox. 4 H302

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.

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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:
Wear appropriate personal protective equipment to prevent contamination of skin, eyes and clothing.
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. Keep containers closed when not in use. 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 5°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.

- **Diethylene glycol CAS No.111-46-6**

Country	Limit value - Eight hours		Limit value - Short term		Notes
	ppm	mg/m³	ppm	mg/m³	

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Australia	23	100			
Austria	10	44	40	176	
Denmark	2,5	11	5	22	
Germany (AGS)	10 (1)	44 (1)	40 (1)(2)	176 (1)(2)	(1) Inhalable aerosol and vapour (2) 15 minutes reference period
Germany (DFG)	10	44	40	176	
Ireland	23	100			
Latvia		10			
New Zealand	23	101			
Poland		10			
Romania	115	500	184 (1)	800 (1)	(1) 15 minutes average value
Sweden	10	45	20 (1)	90 (1)	(1) 15 minutes average value
Switzerland	10	44	40	176	
United Kingdom	23	101			

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 - eg., 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 state	Liquid
Colour	color from yellow to brown
Odour	irritant
pH	No data available
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability	Supporting combustion
Lower and upper explosion limit	No data available
Vapour pressure	No data available
Relative vapour density	No data available
Density and/or relative density	1,1 – 1,2 g/cm^3 (25°C)

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Solubility	Soluble in acetone and ethyl acetate
Partition coefficient n-octanol / water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Kinematic viscosity	No data available
Particle characteristics	No data available

9.2. Other information.
Viscosity 300 – 700 mPas (25°C)

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.
a) **Acute toxicity**

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

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

- **N,N-bis[3dimethyloamino)propylo]-N',N'-dimethylo-propane-1,3-diamine**

Parameter	Route of exposure	Value	Species
LD50	Oral	2,445 mg/kg	Rat
LD50	Skin	1,150 mg/kg	Rabbit
LC50	Inhalation	1,9 mg/l	Rat

b)Skin corrosion / irritation
Causes skin irritation.
c)Serious eye damage / irritation
Causes serious eye irritation.
d) respiratory or skin sensitisation;
No data
e) germ cell mutagenicity
Not mutagenic.
f)Carcinogenicity

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Not classified as carcinogenic acting.
g)Reproductive toxicity
Not classified as toxic for reproduction.
h) STOT-single exposure;
Not classified as an operating target organ toxicity.
i) STOT-repeated exposure;
Not classified as an operating target organ toxicity.
j) aspiration hazard.
No data
11.2. Information on other hazards
No data

SECTION 12: Ecological information
12.1. Toxicity
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)**

	Parameter	**Value**	**Species**
Fish	LC50	51 mg/l, 96h 56,2 mg/, 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. Endocrine disrupting properties
No data
12.7. 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 law[1)].

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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 law[1)].
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 number or ID 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. 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. Maritime transport in bulk according to IMO instruments
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
Laws concerning the safety, health and environment 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).
- Commission Regulation (EU) No 2020/878 of 18 June 2020 amending Annex II to 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 (Journal of Laws 2019, item 1225 as amended)

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- Regulation of the Minister of Health of 25 August 2015 on the method of marking places, pipelines and containers and tanks used for storage or containing hazardous substances or mixtures (Journal of Laws 2015, item 1368 as amended)
- The Act of 19 August 2011 on the transport of dangerous goods (Journal of Laws 2018, item 169 as amended)
- Regulation of the Ministry of Labour and Social Policy of 12 June 2018 on the maximum allowable concentrations and intensities of factors harmful to health in the work environment (Journal of Laws 2018, item 1286 as amended).

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.

Hazard statement:
H314 – Causes severe skin burns and eye damage
H311 – Toxic in contact with skin
H312 – Harmful in contact with skin
H331 – Toxic if inhaled.
H373 – May cause damage to organs (Kidneys*)* through prolonged or repeated exposure
H412 – Harmful to aquatic life with long lasting effects.

The update concerns a section 1-16.

End of Safety Data Sheet

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