

**SAFETY DATA SHEET according to regulation EC 1907/2006
(REACH) and its updates**

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GraviHEL PUR topcoat 402 - 003 semi gloss

Revision No.:2/ 2
First Revision Date: 20-10-17
Revision Date:05-11-20
Print Date:17-11-20**1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product	GraviHEL PUR topcoat 402 - 003 semi gloss
Item code(s):	480775

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

Use, scope:	A high-quality top coating with high weather, mechanical, chemical and UV protection, suitable for the most demanding exposure conditions. The product is intended for professional or industrial application.
Restrictions on use	No restrictions known.

1.3. Details of the supplier of the safety data sheet

Producer	HELIOS TBLUS d.o.o. Količevo 65 • 1230 Domžale, Slovenija T +386 1 722 40 00 F +386 1 722 43 10
Responsible person	Matija Podobnik, e-mail: matija.podobnik@helios.si

1.4. Emergency telephone number

Phone	In case of health hazard, consult a private or a doctor on duty. For additional information please call phone number +386 (1) 722 4383 HSE dept.).
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2. Hazards identification**2.1. Classification of the substance or mixture**

Classification (EU 1272/2008)

Categories of danger	Skin Corrosion/Irritation 2 Serious Eye Damage/Eye Irritation 2 Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure 2 Flammable Liquid 3 Specific Target Organ Systemic Toxicity (STOT) - Single Exposure 3 Hazardous to the aquatic environment - Chronic 3
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2.2. Label elements

EU 1272/2008:



Signal Word	Warning
Contains:	reaction mixture of ethylbenzene, m-xylene and p-xylene; mixture of sterically composed sebacates May produce an allergic reaction.
Hazard phrases (H-phrases):	H226 - Flammable liquid and vapour. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation. H373 - May cause damage to organs through prolonged or repeated exposure. H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P273 - Avoid release to the environment. P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P314 - Get medical advice/attention if you feel unwell. P332+P313 - If skin irritation occurs: Get medical advice/attention.

2.3. Other hazards

Product contains organic solvents.

3. Composition/information on ingredients

3.2. Mixtures

Chemical Name	Concentration [weight %]	CAS EINECS EU INDEX REACH reg.no.	Classification (REGULATION (EC) No. 1272/2008) Notes
reaction mixture of ethylbenzene, m-xylene and p-xylene	10-19,99	- 905-562-9 - 01-2119555267-33	Asp.Tox.1; H304 STOT RE 2; H373 STOT SE 3; H335 Eye Irrit.2; H319 Skin Irrit. 2; H315 Acute Tox. 4; H332 Acute Tox. 4; H312 Flam. Liq. 3; H226
hydrocarbons, C9 aromatics	5,0-9,99	- 918-668-5 - 01-2119455851-35	Aquatic Chronic 2; H411 Asp.Tox.1; H304 STOT SE 3; H336 STOT SE 3; H335 Flam. Liq. 3; H226 P
reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-	0,5-0,99	1065336-91-5 915-687-0 -	Aquatic Chronic 1; H410 Aquatic. Acute 1; H400 Skin Sens. 1; H317

piperidyl sebacate		01-2119491304-40	

Notes:	The classification for the product was made on basis of actual content of components. The contained substances are shown in intervals. In case of inspection check (control of classification) we are ready to send to inspection bodies on their request the actual content of individual components.
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4. First aid measures

4.1. Description of first aid measures

In case of excessive inhalation:	If there are any symptoms transfer the victim to clean air.
In case of contact with skin:	Remove contaminated clothing. Wash skin with soap and water.
In case of contact with eyes:	Flush eyes with water to remove product residue.
In case of ingestion:	Do not eat. Rinse mouth with water. Do not induce vomiting.

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

In case of excessive inhalation:	Respiratory tract irritation, coughing, burning sensation in the nasal cavity.
In case of contact with skin:	None data known.
In case of contact with eyes:	None data known.
In case of ingestion:	None data known.

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

	No data available
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5. Firefighting measures

5.1. Extinguishing media

Fire Extinguishing Media:	SUITABLE: Foam, powder, carbon dioxide, inert gas or INERGEN FM 200 (started phase fire fighting), water fog. UNSUITABLE: Water jet, unless USED ONLY for water mist to cool containers with flammable products. Remove all possible sources of ignition: open flame, lit cigarette, sparking of tools and equipment. Close packagings with product.
Unsuitable extinguishing media:	Open water jet

5.2. Special hazards arising from the substance or mixture

Specific methods of extinguishing fire:	Extinguish fire in wind direction. Cool down vessels with product, which do not burn with dispersed water, prevent leakage of the product and place them in a safety place. The possibility of formation man harmful gases and thick smoke during the fire. The use of protective mask with filter A is mandatory.
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5.3. Advice for firefighters

Special equipment to protect firefighters:	Independent fire extinguisher on compressed air, a full fire-fighting equipment to protect the body.
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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:	Remove possible sources of ignition (flame, lit cigarette, sparking etc.). Protect respiratory system against inhalation of vapours. Provide good ventilation.
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6.2. Environmental precautions

Environmental precautions:	Prevent leakage into water, water dams, cellars, caves or sewage system. Prevent outflow into water, water dams, cellars, caves or sewage system and vapour accumulation in closed rooms.
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6.3. Methods and material for containment and cleaning up

Methods of cleaning up:	Absorb the outflow product and mix it with soil, sand or other absorptive materials for liquids. Leave waste to the authorized waste collectors.
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6.4. Reference to other sections

Disposal of waste - Chapter 13, personal protective equipment - Chapter 8.

7. Handling and storage

7.1. Precautions for safe handling

Personal precautions:	At the use product vapours may produce flammable/explosive mixtures of vapours and air. During the pumping static electrification may occur. Emptying of static electrification, which could cause fire. At the decanting of larger quantities assure conductivity with binding and earthing of complete equipment. Prevent contact with hot objects, sparkles, flame and sources of ignition.
Advice on safe handling:	Do not smoke, drink or eat while handling the product. Do not breathe vapors, avoid contact with skin and eyes. At work wear cotton overalls or coveralls, nitrile rubber gloves and safety glasses with side shields.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and conditions:	SUITABLE: Store in tightly closed vessels in a cool and ventilated room. Prevent the formation of static electrification. UNSUITABLE: Storage in the room together with chemicals (oxidants, acids) may cause fire. In the warehouse there should be no tools or machines, which are the source of sparking. Store in an upright position.
Storage Class:	3 (German VCI Guideline)

7.3. Specific end use(s)

No further relevant information available.

8. Exposure controls/personal protection

8.1. Control parameters

The prescribed of threshold limit value (TLV) for occupational exposure to hazardous substances in the atmosphere post the Regulation on the safety of employees from risks against chemical substance exposure at work:

Data on components:

Chemical Name	TLV (mg/m ³)	TLV (ml/m ³ , PPM)	STL	Note
reaction mixture of ethylbenzene, m-xylene and p-xylene	221	50	2	K EU

Biological limit values for components:

Chemical Name	Characteristic indication Biological sample Sampling time Biological limit values
reaction mixture of ethylbenzene, m-xylene and p-xylene	reaction mixture of ethylbenzene, m-xylene and p-xylene blood after working shift 14.13 mmol/l

DNEL = Derived No Effect Level

Component Data:

Chemical Name	Population Exposure Effects Values (units)
reaction mixture of ethylbenzene, m-xylene and p-xylene	Workers Longterm inhalational 221 mg/m ³ Workers Shortterm inhalational 442 mg/m ³ Workers Longterm dermal 3182 mg/kg/bw/day Consumers Longterm inhalational 65.3 mg/m ³ Consumers Shortterm inhalational 260 mg/m ³ Consumers Longterm dermal 1872 mg/kg/bw/day Consumers Longterm oral 12.5 mg/kg/bw/day
hydrocarbons, C9 aromatics	Workers Longterm dermal Systemic effects 25 mg/kg/bw/day Workers Longterm oral Systemic effects 150 mg/m ³ Consumers Longterm dermal Systemic effects 11 mg/kg/bw/day Consumers Longterm inhalational 32 mg/m ³ Workers Longterm inhalational Systemic effects 150 mg/m ³
reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Workers Longterm inhalational Systemic effects 2.53 mg/m ³ Workers Shortterm dermal Systemic effects 2.5 mg/kg Workers Shortterm inhalational Systemic effects 2.35 mg/m ³ Workers Longterm dermal Systemic effects 2.5 mg/kg Consumers Shortterm dermal Systemic effects 1.25 mg/kg Consumers Shortterm inhalational Systemic effects 0.58 mg/m ³ Consumers Longterm inhalational Systemic effects 0.58 mg/m ³ Consumers Longterm dermal Systemic effects 1.25 mg/kg Consumers Shortterm oral Systemic effects 1.25 mg/kg

PNEC = Predicted No Effect Concentration

Component Data:

Chemical Name	Media detail Values
reaction mixture of ethylbenzene, m-xylene and p-xylene	Sea water 0.25 mg/l Sediment in fresh water 14.33 mg/kg Earth 2.41 mg/kg
reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Fresh water = 0.002 mg/l Sea water = 0 mg/l intermittent releases = 0.009 mg/l Sediment in fresh water = 1.05 mg/kg Sediment in sea water = 0.11 mg/kg Earth = 0.21 mg/kg Cleaning device = 1 mg/l

8.2. Exposure controls

Respiratory protection:	When used in confined spaces, prolonged work, wear protective mask for the whole face with filter "A". In case that the oxygen concentration in the air of work room falls under 17 %, use independent respirator with an open circle on the compressed air.
Hand protection:	Special protection is not necessary, use protective gloves only at direct contact with the product
Eye protection:	Not needed.
Skin protection:	Wear protective overalls made of cotton.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

(a) Appearance:	Liquid
(b) Odour:	No data available
(c) Odour threshold:	Product components have a high limit of odor detection.
(d) pH:	No data available
e) Melting point/freezing point:	≥ 1520 °C ; computational method, based on component data ; talc
(f) Initial boiling point and boiling range:	138 - 141.4 °C ; computational method, based on component data ; reaction mixture of ethylbenzene, m-xylene and p-xylene
(g) Flash point:	25 °C ; computational method, based on component data ; reaction mixture of ethylbenzene, m-xylene and p-xylene
(h) Evaporation rate:	; computational method, based on component data ; No data
(i) Flammability (solid, gas):	Flammable liquid and vapour.
(j) Upper/lower flammability or explosive limits:	1.1 6.6 ; computational method, based on component data
(l) Vapour density:	No data
(m) Relative density(kg/l):	1.294 ISO 2811
(n) Solubility(ies):	Negligible; 0-1%
(o) Partition coefficient: n-octanol/water:	; computational method, based on component data
(p) Auto-ignition temperature:	; computational method, based on component data ; No data
(q) Decomposition temperature:	No data
Kinematic viscosity:	> 21 mm ² /s, 40 °C
(s) Explosive properties:	Product is not explosive. However, formation of explosive steam/air mixtures is possible.
(t) Oxidising properties:	No data
9.2. Other information	
Solids content: (calculated, %)	57 - 61
Organic solvents (wght. %)	39 - 43
Water content: (calculated, %)	0.14

10. Stability and reactivity

10.1. Reactivity

Reactivity:	Stable - when used in accordance with the instructions.
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10.2. Chemical stability

Stability:	The product is stable under conditions in accordance with the instructions and proper storage.
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10.3. Possibility of hazardous reactions

Hazardous conditions:	The presence of open flame or hazardous materials. Avoid contact of product with heat, sparks, flames and other ignition sources.
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10.4. Conditions to avoid

Unwanted conditions:	No data available
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10.5. Incompatible materials

Incompatibility:	The product is non-reactive and compatible with majority of substances, except with extreme oxidants. Keep the product in the original packaging. Do not mix with other products.
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10.6. Hazardous decomposition products

	No data available
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11. Toxicological information

11.1. Information on toxicological effects

(a) acute toxicity:

ORAL	None data known.
DERMAL	Product contains components which may cause effects in case of contact with skin and may cause problems to some individuals. Such components are: ; computational method, based on component data reaction mixture of ethylbenzene, m-xylene and p-xylene
INHALATIONAL	Product contains components which may have harmful effects at contact after inhalation of vapour, mists or gas and may cause troubles to more sensitive individuals. Such components are: ; computational method, based on component data reaction mixture of ethylbenzene, m-xylene and p-xylene
Special precautionary measures:	Wash hands thoroughly after handling. Do no eat, drink or smoke when using this product.

(b) skin corrosion/irritation:

Skin:	Causes skin irritation.
Special precautionary measures:	If skin irritation occurs: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water.

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(c) serious eye damage/irritation:

Eyes:	Causes serious eye irritation.
Special precautionary measures:	If eye irritation persists: Get medical advice/attention.

(d) respiratory or skin sensitisation:

Skin:	Product contains components which may cause skin sensitivity and may cause problems to some individuals.
Special precautionary measures:	Wear protective gloves/protective clothing/eye protection/face protection.

(e) germ cell mutagenicity:

Exposure to product:	None data known.
Special precautionary measures:	Product does not contain components classified as mutagenic.

(f) carcinogenicity:

Exposure to product:	None data known.
Special precautionary measures:	Product does not contain components classified as cancerogenic.

(g) reproductive toxicity:

Exposure to product:	None data known.
Special precautionary measures:	Product does not contain components classified as being reprotoxic.

(h) STOT-single exposure:

Exposure to product:	May cause respiratory irritation.
Special precautionary measures:	Use only outdoors or in a well-ventilated area.

(i) STOT-repeated exposure:

Exposure to product:	May cause damage to organs through prolonged or repeated exposure.
Special precautionary measures:	Get medical advice/attention if you feel unwell. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapours/spray.

(j) aspiration hazard:

INHALATIONAL	Product contains components which may cause aspiration hazard, but kinematic viscosity is high enough that product is not classified with aspiration hazard.
Special precautionary measures:	Do NOT induce vomiting.

12. Ecological information

12.1. Toxicity

Ecotoxicity - Data on components:	The product contains components that are harmful to fish and aquatic environment.
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Chemical Name	Ecotoxicity conc.
reaction mixture of ethylbenzene, m-xylene and p-xylene	LC 50 (Marine Water), 48 h Crustaceans - Palaemonetes pugio = 8500 µg/l LC 50 (Fresh Water), 96 ur Oncorhynchus mykiss 3300 - 4093 µg/l EC 50, 48 h: Daphnia 2930 - 4400 µg/l
hydrocarbons, C9 aromatics	EC 50, 48 h: Daphnia = 3.2 mg/l Aquatic LC50 (96h) fish = 9.2 mg/l

12.2. Persistence and degradability

Biodegradation	No data available
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12.3. Bioaccumulative potential

Bioconcentration:	No data available
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12.4. Mobility in soil

Mobility	No data
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12.5. Results of PBT and vPvB assessment

PBT and vPvB:	No data available
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12.6. Other adverse effects



Ecotoxicity - Data on components:	Based on the classification of components, product may have adverse effects on the environment.
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13. Disposal considerations

13.1. Waste treatment methods

Product:	The product leftovers , waste and useless packaging should be handled in accordance with the Regulations on processing of special and dangerous waste (dir. 91/689/EEC, dir. 2000/532/EC). Waste classification number: 08 01 11 Waste hazardous characteristic: H3-B The recommended degradation method is the use of the controlled high temperature incineration or disposal to the deposits for dangerous substances.
Packaging:	In case the metal packaging can not be reused, it will be recycled in the ironworks or disposed at special deposits (dir. 94/62/EC, dir. 1999/177/EC).

14. Transport information

	Transport by road/by railway - ADR/RID:	Transport by sea – IMDG:	Air transport (IATA):
14.1. UN number	1263	1263	1263
14.2. UN proper shipping name	PAINT	PAINT	PAINT
14.3. Transport hazard class(es)	3	3	3
14.4. Packing group	III	III	III
Label:			
Hazard number:	30	30	30
Tunnel restriction code:	(D/E)		
Limited quantities:	 packages: inner: =< 5 units; outer: =< 30 units		
Instructions for emergency EmS:		F-E, S-E	
14.5. Environmental hazards	No	No	No
14.6. Special precautions for user	Transport with respecting transport labels and the requests of transportation legislation.		
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable		

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15. Regulatory information

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

This Safety Data Sheet has been prepared in accordance with a comprehensive chemicals legislation - REACH Regulation on chemicals and the Regulation for classification, labeling and packaging (CLP/GHS).

The product due to its (hazardous properties falls under the law of Major Accident Hazard (EU 96/82 - Seveso), is classified in category of this Regulation.

Hazard categories (EC) No 1272/2008: P5c FLAMMABLE LIQUIDS

15.2. Chemical safety assessment

Has not been conducted.

16. Other information

The importance of H phrases from Chapter 3:

H410 - Very toxic to aquatic life with long lasting effects.

H317 - May cause an allergic skin reaction.

H411 - Toxic to aquatic life with long lasting effects.

H336 - May cause drowsiness or dizziness.

H335 - May cause respiratory irritation.

H304 - May be fatal if swallowed and enters airways.

H226 - Flammable liquid and vapour.

H373 - May cause damage to organs through prolonged or repeated exposure.

H319 - Causes serious eye irritation.

H315 - Causes skin irritation.

H312+H332 - Harmful if in contact with skin or inhaled.

Changes from previous revisions:	Changes to the sheet were made in section: 2., 3., 8., 9., 11., 12., 14., 15., 16.
Literature / Data Sources:	Supplier's / manufacturer's safety data, references to toxicological databases.

The information in this Safety Data Sheet refer only to the mentioned product in the form as delivered and it is not necessary valid when this material is used in the combination with other materials or in the processes, which are not foreseen in the instructions for use. This information is correct to the supplier's best of knowledge and reliable at the time of the publication of this Safety data sheet. It is the user's responsibility to ascertain the suitability of the product for a specific use.

The data in this Safety data sheet do not prove the quality of the product, they are only the instructions for the safe use of the product with the user.

In case of non-compliance with the measures or incorrect use of the product, stated in the Safety data sheet we do not accept any responsibility for the consequences.

