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

1.1. Product identifier

Trade name or designation of the mixture BROSIA XPERF PU V 2

Registration number -

UFI:

EU: NK00-S0N1-M00C-S9W6

Synonyms None.

Product code H2331

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

Identified uses Lubricant grease

Uses advised against Not available.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name HAFA France

Address ZI - Allée Clotaire 1er
BP 243
76197 YVETOT
FR

Division HAFA Quality Department

Telephone Tel.: 33 (0) 2 35 95 45 54
Fax: 33 (0) 2 35 95 83 63

e-mail fds@hafa.org

Contact person Not available.

1.4. Emergency telephone number

Emergency Tel. (France) ORFILA (INRS)

+ 33 (0)1 45 42 59 59

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms



Signal word Warning

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

Prevention

P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Store away from incompatible materials.

Disposal Not available.

Supplemental label information EUH208 - Contains Naphthenic acids, zinc salts. May produce an allergic reaction.

2.3. Other hazards The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight. The mixture does not contain any substances having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1% by weight.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
MDI/CHA/ODA (MIXED)	10 - < 20	N/D 406-530-2	01-0000015606-69-XXXX	-	
Classification:	Aquatic Chronic 4;H413				
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts	1 - < 3	68442-22-8 270-478-5	01-2119948548-22-XXXX	-	
Classification:	Skin Irrit. 2;H315, Eye Dam. 1;H318, Aquatic Chronic 2;H411				
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	< 1	68411-46-1 270-128-1	-	-	
Classification:	Repr. 2;H361f, Aquatic Chronic 3;H412				
Naphthenic acids, zinc salts	< 0,3	12001-85-3 234-409-2	01-2120783834-41-XXXX	-	
Classification:	Eye Irrit. 2;H319, Skin Sens. 1B;H317, Aquatic Chronic 2;H411				

List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008. "-" = Not available or this substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.
ATE: Acute toxicity estimate.
M: M-factor
vPvB: very persistent and very bioaccumulative substance.
PBT: persistent, bioaccumulative and toxic substance.
#: This substance has been assigned Union workplace exposure limit(s).
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments Occupational Exposure Limits for constituents are listed in Section 8. The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. If swallowed, do NOT induce vomiting. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Dry chemicals. Carbon dioxide (CO2). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture Irritating and/or toxic gases may be emitted upon the products decomposition. See also section 10.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures In case of fire and/or explosion do not breathe fumes. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Specific methods In the event of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

For emergency responders Keep unnecessary personnel away. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk.

Small Spills: Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.
Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. The product is insoluble in water.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

See Technical Data Sheet. To avoid thermal decomposition, do not overheat. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Wash hands after handling. Handle in accordance with good industrial hygiene and safety practices. Adequate ventilation should be provided so that exposure limits are not exceeded.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Store in closed original container in a dry place. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Observe industrial sector guidance on best practices.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Slovakia. OELs. Maximum permissible exposure limits for chemical factors in workplace air (Regulation No 355/2006, Annex 1, Table 1, as amended)

Components	Type	Value	Form
Naphthenic acids, zinc salts (CAS 12001-85-3)	TWA	2 mg/m3	Inhalable fraction.
		0,1 mg/m3	Respirable fraction.
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts (CAS 68442-22-8)	TWA	2 mg/m3	Inhalable fraction.
		0,1 mg/m3	Respirable fraction.

Slovenia

Components	Type	Value
Déc-1-ène, homopolymère, hydrogéné (CAS 68037-01-4)	KTV	20 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures

Additional exposure data

Occupational Exposure Limits are not relevant to the current physical form of the product.

Recommended monitoring procedures

Follow standard monitoring procedures.

Derived no effect levels (DNELs)

Not available.

Predicted no effect concentrations (PNECs)	Not available.
Exposure guidelines	Occupational Exposure Limits are not relevant to the current physical form of the product.

8.2. Exposure controls

Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas. Provide eyewash station.

Individual protection measures, such as personal protective equipment

General information	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
- Hand protection	Use protective gloves made of: Viton rubber (fluor rubber). Polyvinyl alcohol (PVA). P.T.F.E (Teflon).
- Other	Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid.
Form	Solid. Paste.
Colour	Beige.
Odour	Mild.
Melting point/freezing point	Not available.
Boiling point or initial boiling point and boiling range	Not available.
Flammability	Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Flash point	Not applicable.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.

pH	Not available.
Kinematic viscosity	Not available.
Solubility	
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water) (log value)	Not available.
Vapour pressure	Not available.
Density and/or relative density	
Relative density	0,88
Relative density temperature	20 °C (68 °F)
Vapour density	Not available.
Particle characteristics	Not available.
9.2. Other information	
9.2.1. Information with regard to physical hazard classes	No relevant additional information available.
9.2.2. Other safety characteristics	
Dropping point	>230 °C
Explosive properties	Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials. Avoid temperatures above 500°F (260°C).
10.5. Incompatible materials	Strong oxidising agents. Halogenated materials. Avoid contact with acids and alkalies.Magnesium (Powder, 200°C)Aluminum (Powder, 200°C)
10.6. Hazardous decomposition products	Hydrogen fluoride. At thermal decomposition temperatures, carbon monoxide and carbon dioxide. Carbonic difluoride.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhoea.
The thermal decomposition vapours of fluorinated polymers may cause polymer fume fever. The symptoms are shivering, fever, malaise and muscular pain.

Components	**Species**	**Test Results**
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (CAS 68411-46-1)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg

Components	Species	Test Results
Naphthenic acids, zinc salts (CAS 12001-85-3)		
Acute		
Oral		
LD50	Rat	4920 mg/kg
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts (CAS 68442-22-8)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Oral		
LD50	Rat	4358 mg/kg

Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Serious eye damage category 1 Not classified as

Respiratory sensitisation Not classified.

Skin sensitisation Not classified.

Germ cell mutagenicity Not classified.

Carcinogenicity Not classified.

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not classified.

Mixture versus substance information No information available.

11.2. Information on other hazards

Endocrine disrupting properties This mixture does not contain any substances having endocrine disrupting properties with respect to human health as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

Components		Species	Test Results
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts (CAS 68442-22-8)			
Aquatic			
Acute			
Algae	EC50	Algae	21 mg/l, 72 hours
Crustacea	EC50	Daphnia	23 mg/l, 48 hours
Fish	LC50	Fish	4,5 mg/l, 96 hours
Chronic			
Crustacea	NOEC	Daphnia	0,4 mg/l, 21 days

12.2. Persistence and degradability	No data is available on the degradability of this product.
12.3. Bioaccumulative potential	
Partition coefficient n-octanol/water (log Kow)	Not available.
12.4. Mobility in soil	No data available.
Mobility in general	The product is immiscible with water and will spread on the water surface.
12.5. Results of PBT and vPvB assessment	Not available.
12.6. Endocrine disrupting properties	This mixture does not contain any substances having endocrine disrupting properties with respect to the environment as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.
12.7. Other adverse effects	Product does not contain substances which are persistent, mobile, and toxic (PMT) at levels of 0.1 % or higher. Product does not contain substances which are very persistent and very mobile (vPvM) 0.1 % or higher.

12.8. Additional information

Estonia Dangerous substances in soil Data

Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts (CAS 68442-22-8)	Zinc (Zn) 1000 mg/kg
	Zinc (Zn) 200 mg/kg
	Zinc (Zn) 500 mg/kg

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	Waste codes should be assigned by the user based on the application for which the product was used. Unused product : 12 01 12*
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not discharge into drains, water courses or onto the ground. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1 UN number or ID number	Not regulated as dangerous goods.
14.2. UN proper shipping name	Not regulated as dangerous goods.
14.3. Transport hazard class(es)	
Class	Not assigned.
Subsidiary hazard	-
Hazard No. (ADR)	Not assigned.
Tunnel restriction code	Not assigned.
14.4. Packing group	-

14.5. Environmental hazards No.
14.6. Special precautions for user Not assigned.

IATA

14.1 UN number or ID number Not regulated as dangerous goods.
14.2. UN proper shipping name Not regulated as dangerous goods.
14.3. Transport hazard class(es)
Class Not assigned.
Subsidiary hazard -
14.4. Packing group -
14.5. Environmental hazards No.
14.6. Special precautions for user Not assigned.

IMDG

14.1 UN number or ID number Not regulated as dangerous goods.
14.2. UN proper shipping name Not regulated as dangerous goods.
14.3. Transport hazard class(es)
Class Not assigned.
Subsidiary hazard -
14.4. Packing group -
14.5. Environmental hazards
Marine pollutant No.
EmS Not assigned.
14.6. Special precautions for user Not assigned.

14.7. Maritime transport in bulk according to IMO instruments Not applicable.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Naphthenic acids, zinc salts (CAS 12001-85-3)
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts (CAS 68442-22-8)

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended - Conditions of restriction given for the associated entry number should be considered

Polytetrafluoroethylene (CAS 9002-84-0) 78

Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex I, as amended

Not listed.

Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex II, as amended

Not listed.

Other EU regulations

Polytetrafluoroethylene : 1-5 % - HS Code 3904*.
The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations

Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

Water hazard class

AwSV WGK3

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.
AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).
CAS: Chemical Abstract Service.
CEN: European Committee for Standardization.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
IMO: International Maritime Organization.
MAC: Maximum Allowed Concentration.
PBT: Persistent, bioaccumulative and toxic.
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
STEL: Short term exposure limit.
TLV: Threshold Limit Value.
TWA: Time Weighted Average.

VLE: Exposure Limit Value.
VME: Exposure Average Value.
vPvB: Very persistent and very bioaccumulative.

References Not available.

Information on evaluation method leading to the classification of mixture The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements, which are not written out in full under sections 2 to 15

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H361f Suspected of damaging fertility.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

Revision information None.

Training information Follow training instructions when handling this material.

HAFA France cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. This document complements the technical sheets but does not replace them. The information contained herein is based on our knowledge of the concerned product on the date indicated. It is offered in good faith. Furthermore, the regulatory requirements referred to must not be considered as exhaustive. They do not exempt in any form the user from knowing and applying all regulations related to the possession and use of the product. The user takes as their sole responsibility the implementation of precautions relating to storage and their use of the product.