

SAFETY DATA SHEET

Sheet: CH PHH299

Reg. EC/1907/2006 - Reg. (EU) n.830/2015-29 CFR 1910.1200 (OSHA-HCS)

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

- 1.1. Product identifier: CH PHH299 **PERFETTO HARDENER FOR PERFETTO CLEAR COAT**
- 1.2. Relevant identified uses of the substance or mixture and uses advised against: HARDENER FOR CLEAR COAT
- 1.3. Details of the supplier of the safety data sheet: LEVEL Finish LLC 1161N 1210W STE 200 St. George, UT 84770 USA
For further information concerning the use of this safety data sheet please phone 1(844) 340-5567.
Chemical technician in charge of the safety data sheet: r.basetti@allchem.it
- 1.4. Emergency telephone number: Chemtrec 1(800) 424-9300

SECTION 2: Hazard identification

- 2.1. Classification of the substance or mixture.

2.1.1 In compliance with Reg. EC n.1272/2008 the mixture is classified:  GHS02  GHS07 - Flam. Liq 3 H226 - Acute Tox. 4 H332 - STOT SE 3 H335 - Skin Irrit. 2 H315 - Skin Sens. 1 H317 - STOT SE 3 H336 - Aquatic Chronic 3 H412 EUH066.

2.1.2. Classification according to 29 CFR 1910.1200 (OSHA-HCS): Flammable liquids catg. 3, Acute toxicity Inhalation catg. 4, Specific target organ toxicity (single exposure) catg. 3 (respiratory tract irritation), Skin Irritant catg. 2, Skin Sensitizer catg. 1, Specific target organ toxicity (single exposure) catg. 3 (narcotic effects).

- 2.2. GHS Label elements according to OSHA-HCS:

Hazard pictograms:



Signal word: **Warning**

Hazard Statements: H226 Flammable liquid and vapour.
H332 Harmful if inhaled
H335 May cause respiratory irritation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction
H336 May cause drowsiness or dizziness.

Precautionary Statements.

- Prevention: P210 Keep away from heat / sparks / open flames / hot surfaces. – No smoking.
P233 Keep container tightly closed.
P240 Ground / bond container and receiving equipment.
P242 Use only non sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
P271 Use only outdoors or in a well-ventilated area.
- Response: P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P362+P364 Take off contaminated clothing and wash it before reuse
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P370+P378 In case of fire: Use dry chemical (BC) or Carbon dioxide (CO₂) for extinction.
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.
P304+P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- Storage: P405 Store locked up.
P235 Keep cool.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- Disposal: P273 Avoid release to the environment.
P501 Dispose of contents / container in accordance with local, state and federal regulations.

Supplementary label elements:









May produce an allergic reaction. Repeated exposure may cause skin dryness or cracking. Harmful to aquatic life with long lasting effects.

- 2.3 Other hazards

None of the components of the mixture satisfy the criteria for the identification of PBT and vPvB.

SECTION 3: Composition / information on ingredients

3.2. Mixtures: Dangerous components (classification according to Reg. (EC) n. 1272/2008 and 29 CFR 1910.1200 OSHA-HCS)

Denominazione	N° CAS	Conc. % in peso	Classificazione Reg. (CE) n. 1272/2008			Note
	N° reg. ECHA		classe e categoria di pericolo	Pittogrammi e codici di etichettatura	indicazioni di pericolo	
	N° CE					
hexamethylene diisocyanate, oligomerisation product	28182-81-2	45 ÷ 50 %	Acute Tox. 4 Skin Sens. 1 STOT SE 3	 Wng	H332 H317 H335	
	01-2119485796-17					
	931-274-8					
n-butyl acetate	123-86-4	20 ÷ 25 %	Flam. Liq. 3 STOT SE 3	 Wng	H226 H336 EUH066	
	01-2119485493-29					
	204-658-1					
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate homopolymer	53880-05-0	10 ÷ 15 %	STOT SE 3 Skin Sens. 1	 Wng	H335 H317	
	01-2119488734-24					
	931-312-3					
heptan-2-one	110-43-0	5 ÷ 10 %	Flam. Liq. 3 Acute Tox. 4 Acute Tox. 4 STOT SE 3	 Wng	H226 H302 H332 H336	
	01-2119902391-49					
	203-767-1					
xylene	1330-20-7	5 ÷ 9 %	Flam. Liq. 3 Acute Tox. 4 Acute Tox. 4 Skin Irrit. 2 Eye Irrit. 2 Asp. Tox. 1 STOT SE 3 STOT RE 2	 Dgr	H226 H332 H312 H315 H319 H304 H335 H373	
	01-2119488216-32					
	215-535-7					
solvent naphtha (petroleum), light arom.	64742-95-6	1 ÷ 5 %	Flam. Liq. 3 Asp. Tox. 1 Skin Irrit. 2 STOT SE 3 Aquatic Chronic 2	 Dgr	H226 H304 H315 H336 H411	P
	01-2119486773-24					
	265-199-0					
hexamethylene diisocyanate	822-06-0	< 0,2 %	Acute Tox. 1 Eye Irrit. 2 STOT SE 3 Skin Irrit. 2 Resp. Sens. 1 Skin Sens. 1	 Dgr	H330 H319 H335 H315 H334 H317	
	01-2119457571-37					
	212-485-8					
5-Isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane	4098-71-9	< 0,2 %	Acute Tox. 1 Eye Irrit. 2 STOT SE 3 Skin Irrit. 2 Resp. Sens. 1 Skin Sens. 1 Aquatic Chronic 2	 Dgr	H330 H319 H335 H315 H334 H317 H411	
	01-2119490408-31					
	223-861-6					

Note P: the substance is not classified as carcinogenic and mutagenic because it contains less than 0,1% of benzene in weight.

SECTION 4: First aid measures

4.1. Description of first aid measures

- **Inhalation.** Remove the patient to a well aired place, keep him warm and make him rest. If respiration is irregular or has stopped, give him artificial respiration. In case of loss of consciousness, keep him in a restful position and consult a doctor.
- **Skin contact.** Immediately remove contaminated garments. Wash the parts involved very thoroughly with soap and water or with an appropriate detergent. Do not use solvents or thinners.
- **Eye contact.** Rinse with plenty of fresh water for at least 15 minutes keeping the eyelids wide open. Remove contact lenses, if present and easy to do. If necessary, call a specialist.
- **Swallowing.** In case of accidental swallowing, consult a doctor immediately. Make the patient rest. Do not induce vomit.

4.2. Most important symptoms and effects, both acute and delayed: No further information available.

4.3. Indication of any immediate medical attention and special treatment needed: No further relevant indication.

SECTION 5: Firefighting measures

5.1. Extinguishing media: Extinguish with carbon dioxide, powders, foam, sprayed water. Do not use water jets.

5.2. Special hazards arising from the substance or mixture: combustion can develop toxic fumes containing carbon monoxide and nitrogen oxides.

5.3. Advice for firefighters: Cool with sprayed water any closed containers exposed to the fire. Do not breath fumes developed from the fire or wear breathing apparatus. Prevent extinguishing liquids from entering sewer systems or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures: Do not breathe in vapours, use the personal protective equipment for person/eyes and respiratory tract. Keep away any source of ignition and ventilate the area. Vapours are heavier than air and may form flammable mixtures along the ground: provide adequate ventilation.

6.2. Environmental precautions: Prevent spills from entering manholes and drains.

6.3. Methods and material for containment and cleaning up: In case of accidental spillage, check and absorb any spilled product with sand and inert materials. Put the contaminated material into tight containers and dispose of as waste according to laws in force. Use no-sparking tools. If the material is to be recovered by aid of aspirators, keep away possible sources of ignition. Do not throw waste material into the sewer system. Clean the area involved with water or detergent liquid. Do not use any solvents.

6.4. Reference to other sections: see also sections 8 and 13.

SECTION 7: Handling and Storage

7.1. Precaution for safe handling: Ensure an adequate ventilation and/or localised suction systems in work places. The material can accumulate electrostatic charges which may cause sparks (source of ignition). Use appropriate storage procedures and grounding systems. Use only in well-ventilated places. For personal protection devices as see paragraph 8. Do not smoke, eat or drink in working areas.

7.2. Condition for safe storage, including any incompatibilities. Store between 15 and 25°C in a dry and well aired place. Keep containers well closed and away from heat sources, sparks and open flames. Do not smoke. Do not allow access to the storage area to unauthorized persons. Keep away from oxidative agents, peroxides, strong acids. Open the containers slowly to control possible pressure losses. Store in a cool and well-ventilated place. Always use packaging of the same type as the original ones. Definitive storage package, package for decanting and related equipment must be grounded to prevent accumulation of electrostatic charges.

Compatible packaging materials and coatings (chemical compatibility): carbon steel; stainless steel; polyethylene; polypropylene; polyester; PTFE.

Not compatible materials and coatings: copper; tin; polystyrene.

7.3. Specific end use(s): No further relevant indication.

SECTION 8: Exposure control / Personal protection

8.1. Control parameters

Professional Exposure Limits:

Component	ACGIH 2014				Note	DIR 2000/39/EC				Note
	TLV - TWA (1)		STEL (2)			TLV - TWA (1)		STEL (2)		
	ppm	mg/m ³	ppm	mg/m ³		ppm	mg/m ³	ppm	mg/m ³	
Xylene 1330-20-7	100	434	150	651	IBE (3)	50	221	100	442	skin
n-butyl acetate 123-86-4	150	713	200	950						
heptan-2-one	50	233				50	238	100	475	skin
hexamethylen diisocyanate	0,005	0,034								

1) Limit for long exposure

2) Limit for short exposure

3) Substance with indicator of Biological Exposure

8.2. Exposure controls

Protection of respiratory tract. The workplaces have to be adequately ventilated. Workplaces have to be equipped with localised suction systems. In working places with insufficient ventilation, it is essential to use protection systems for the respiratory tract, such as masks with filter of the type A according to UNI EN 141 regulations.

Adopt explosion-proof ventilation systems.

Hands protection. Wear PVF or nitrile rubber gloves for brief contact (recommendation: at least protective index 2, corresponding to > 30 min. permeation according to EN374).

Eyes protection. Safety glasses with side shields (frame goggles for example. EN 166).

HYGENIC MEASURES: Do not breathe vapours – Avoid contact with skin and eyes – Keep away from food and drinks – Before breaks and at the end of work wash hands. Remove contaminated garments and wash them before use them again. Persons with an inclination to skin affections and other signs of skin hypersensitivity must avoid any contact with the product. Use anti-static working clothes.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	transparent colourless liquid
Odour:	characteristic of solvents
Olfactory threshold:	data not available for the mixture
pH:	n.a.
Melting point:	data not available for the mixture
Flash point:	32°C (UNI EN ISO 3680:2005)

Evaporation rate:	data not available for the mixture
Flammability limits (Butyl acetate):	1,7÷7,6 % in volume
Vapour pressure:	data not available for the mixture
Boiling range:	data not available for the mixture
Vapour density (Butyl acetate):	4,83 Kg/m ³ at 20 °C
Density (at 20°C):	1,015 Kg/L
Solubility in water (Butyl acetate):	7 g/L a 20°C
Distribution coefficient: n-octanol / water:	data not available for the mixture
Self-ignition temperature:	>240°C
Decomposition temperature:	data not available for the mixture
Viscosity (at 40°C):	> 500 mm ² /s
Explosive properties:	n.a.
Oxidising properties:	see danger identification section
9.2. Other information:	No further relevant indication.

SECTION 10: Stability and reactivity

- 10.1. Reactivity: no data available
- 10.2. Chemical stability: The product is stable under the recommended conditions of storage and use (see paragraph 7).
- 10.3. Possibility of hazardous reactions: formation of explosive mixtures vapour/air.
- 10.4. Conditions to avoid: heat, flames and sparks.
- 10.5. Incompatible materials: strong oxidizing agents, alcohols, amines, water, water-based solutions.
- 10.6. Hazardous decomposition products: none under normal condition of use; If exposed to high temperatures, it can give rise to hazardous decomposition products, such as carbon monoxide and hydrocyanic acid.

SECTION 11: Toxicological information

11.1. Information on toxicological effects:

Acute toxicity of butyl acetate 123-86-4:	LD ₅₀ oral rat	8800 mg/Kg
	LC ₅₀ inhaling rat	9.5 mg/L/4h
Acute toxicity of hexamethylene diisocyanate, oligomerisation product	LD ₅₀ oral rat	> 5000 mg/Kg
Acute toxicity of heptan-2-one:	LD ₅₀ oral rat	1600 mg/Kg
	LC ₅₀ inhaling rat	>16,7 mg/L/4h
Acute toxicity of xylene:	LD ₅₀ oral rat	4300 mg/Kg
	LC ₅₀ inhaling rat	5000 ppm/4h

Chronic effects: concentrations of vapours exceeding recommended exposure levels are irritating to eyes and respiratory tract, can cause headaches and dizziness, have an anaesthetic effect and cause other effects on the central nervous system (narcosis). Repeated and/or prolonged skin contact with low viscosity materials may decrease the skin with possible development of skin irritation and dermatitis.

Irritation: Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Sensitization of the respiratory tract: inhalation of high concentrations may cause symptoms like headache, dizziness, fatigue, nausea and vomiting.

Mutagenicity on germ cell, mutagenicity assessment: the product has not been tested.

Toxicological data were derived from the properties of individual components.

SECTION 12: Ecological information

- 12.1 Toxicity: no specific data is available on the preparation.
- 12.2 Persistence and degradability: no specific data is available on the preparation; mixture components are partially biodegradable and compatible with biological treatment in waste treatment plants.
- 12.3. Bioaccumulative potential: no specific data is available on the preparation.
- 12.4. Mobility in soil: no specific data available on the preparation.
- 12.5. Results of PBT and vPvB assessment: The mixture does not contain substances considered PBT or vPvB.
- 12.6 Other adverse effects: data not available

SECTION 13: Disposal considerations

13.1. Waste treatments methods: Do not discharge the product or residues of treatment into sewer systems or water courses. Waste has to be disposed of in compliance with D. Lgs. Regulations of 3 April 2006, n. 152 (European Directives 91/156/EEC, 91/689/EEC and 94/62/EC). Waste may be treated in waste water depuration plants or in incineration plants. Contaminated containers: Empty containers should be taken for recycling, recovery or disposal as waste.

SECTION 14: Transport information

- 14.1. UN number: UN 1263
- 14.2. UN proper shipping name: PAINT or PAINT RELATED MATERIAL
- 14.3. Transport hazard class(es): Class 3, hazard label N. 3
- 14.4. Packing group: III
- 14.5. Environmental hazards: The substance is not classified either as dangerous for the environment or as marine pollutant. EMS F-E, S-E.
- 14.6. Special precaution for users: see SECTION 7.
- 14.7. Transport in bulk according to Annex II or MARPOL 73/78 and the IBC Code: not applicable.

SECTION 15: Regulatory information

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

The components of the mixture are included in Annex I of Dir. 96/82/EC (Seveso).

The preparation itself does not fall within the scope of Directives 1999/13/EC and 2004/42/EC (Annex II, B) on limits for the emissions of volatile organic compounds (VOC) in vehicles refinishing products. The VOC content of the ready-to-use product is declared on the label of the painting product which has to be mixed following the supplier instruction.

15.2. Chemical safety assessment: no assessment on chemical safety has been carried out for the mixture.

SECTION 16: Other information

Revision for adaptation to EU Regulation n. 605/2014, modified sec. 2, sec. 3, sec.9.

The mixture is classified in compliance with Reg. (EC) 1272/2008 and 29 CFR 1910.1200 OSHA-HCS:

H226 Flam. Liq. 3: Flammable liquid of category 3, official laboratory method.

H332 Acute Tox 4 - H312 Acute Tox. 4: Acute toxicity of category 4, conventional calculation method.

H315 Skin Irrit. 2: Skin irritant of category 2, conventional calculation method.

H317 Skin Sens 1: Skin sensitization of category 1, conventional calculation method.

H335 STOT SE 3 - H336 STOT SE 3: Specific target organs toxicity - single exposure of category 3, conventional calculation method.

H412 aquatic chronic 3 : harmful to aquatic life of category 3, conventional calculation method.

Full text of the hazard statements not indicated at sections 2 and 3:

H 302 Harmful if swallowed

H 304 May be fatal if swallowed and enters airways.

H 312 Harmful in contact with skin.

H 319 Causes serious eye irritation.

H 330 Fatal if inhaled

H 334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H 373 May cause damage to organs through prolonged or repeated exposure.

H 411 Harmful to aquatic life with long lasting effects

Legislation of reference in Italy:

D.M. 28/4/97 – D.M. 28/02/2006 - Classification and labelling of dangerous substances.

D. Lgs. 14/03/2003 – D.Lgs. 28/07/2004 Classification, packing and labelling of dangerous preparations.

D.M. 7/9/2002 - Safety Data Sheets.

D.P.R. 547/55 - D.P.R. 303/56 - D. Lgs. 81/08 - Industrial prevention, security and hygiene.

D.Lgs. 152/2006 – Environmental code.

Legend: TLV-TWA (Threshold Limit Value-Time Weighted Average), TLV-STEL (Threshold Limit Value-Short Term Exposure Limit).

The data contained in this safety sheet are based on our current knowledge and are supplied in compliance with Reg. (EU) n. 830/2015 and 29CFR 1910.1200 OSHA-HCS. The product must not be used for purposes which are different from those indicated under point 1 prior to having obtained specific written instructions. No responsibility is taken for any improper use. It is always the user's liability to conform to the regulations of hygiene, safety and environmental protection foreseen by laws in force. The information contained in this safety data sheet is to be understood as a description of the product for safety purposes, it is not to be considered as a guarantee of its properties.