

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 02.08.2022

Version number 2

Revision: 02.08.2022

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

- **1.1 Product identifier**
- **Trade name: 70GH325253 Additive X PET/ PA**
- **MSDS no.** 131,668
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- **Application of the substance / the mixture** Printing inks
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Hubergroup Italia S.p.A.
Via A. Meucci No. 5/6/7
36050 Bolzano Vicentino
*Dystrybutor:
MICHAEL HUBER POLSKA SP.Z O.O.
Nowa Wieś Wrocławska ul.Nowa 21
55-080 Kąty Wrocławskie
Telefon:071 3548110, Fax: 0713548121
- Telefon: +39 0444-250000
Telefax: +39 0444-350324
- **Informing department:**
Product Safety hubergroup
Telefon: + 49 89-9003-220
Telefax: + 49 89-9003-500
E-mail: product-safety@hubergroup.com
- **EMERGENCY CONTACT:**
phone: 0049 / 621 / 60 43 333
fax 0049 / 621 / 60 92 664
- **1.4 Emergency telephone number:**
During general business hours: Product Safety Division, Extension 220 or 375
- **Poisons Centre** Poisons Centre of Ireland: [+353 (0)1 809 2166]

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.
 Skin Sens. 1 H317 May cause an allergic skin reaction.
 STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

— IE —

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 02.08.2022

Version number 2

Revision: 02.08.2022

Trade name: **70GH325253 Additive X PET/ PA**

(Contd. of page 1)

· Hazard pictograms



GHS02 GHS07

· Signal word Danger

· Hazard-determining components of labelling:

Hexamethylene-diisocyanate-homopolymer
Ethyl acetate

· Hazard statements

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

· 2.3 Other hazards This information is provided by the present Material Safety Data Sheet.

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Dangerous components:

CAS: 141-78-6	Ethyl acetate	30-50%
EINECS: 205-500-4	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	
Reg.nr.: 01-2119475103-46-xxxx		

CAS: 28182-81-2	Hexamethylene-diisocyanate-homopolymer	30-50%
Reg.nr.: 2119485796-17-xxxx	Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	

· Additional information For the wording of the listed hazard phrases refer to section 16.

— IE —
(Contd. on page 3)

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 02.08.2022

Version number 2

Revision: 02.08.2022

Trade name: 70GH325253 Additive X PET/ PA

(Contd. of page 2)

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information**
In all cases of doubt, or when symptoms persist, seek medical advice.
In case of unconsciousness place person in the recovery position. Never give anything by mouth.
- **After inhalation**
Remove to fresh air.
Keep patient warm and at rest.
- **After skin contact**
Remove contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- **After eye contact**
Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses. Obtain medical attention.
- **After swallowing** Do NOT induce vomiting. Obtain medical attention.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Alcohol resistant foam, CO₂, powders, water spray.
- **For safety reasons unsuitable extinguishing agents** Water jet.
- **5.2 Special hazards arising from the substance or mixture**
Appropriate breathing apparatus may be required.
Cool closed containers exposed to fire with water.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.
- **Additional information** Collect run-off from fire fighting.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Exclude sources of ignition.
Ventilate the area.
Avoid breathing vapours.
- **6.2 Environmental precautions:**
Do not allow to enter drains. If the product contaminates rivers and lakes or sewers inform respective authorities.
- **6.3 Methods and material for containment and cleaning up:**
Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local regulations. Clean preferably with a detergent.
Avoid use of solvents.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling

(Contd. on page 4)

— IE —

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 02.08.2022

Version number 2

Revision: 02.08.2022

Trade name: 70GH325253 Additive X PET/ PA

(Contd. of page 3)

See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Prevent the creation of flammable or explosive concentrations of vapour and avoid vapour concentrations higher than the occupational exposure limits.
Additionally, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded.

When transferring from one container to another apply earthing measures and use conductive hose material.

Exercise caution when opening to allow pressure release. Printing ink removed from printing press for storage must be kept in the original container.

No sparking tools should be used.

Avoid inhalation of vapour. Smoking, eating and drinking should be prohibited in application area. For personal protection see Section 8. Comply with health and safety at work laws. Avoid concentrations higher than the occupational exposure limits (see Section 8), if applicable.

· Information about protection against explosions and fires:

Vapours may form explosive mixtures with air.

Solvent vapours are heavier than air and may spread along floors.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage

· Requirements to be met by storerooms and containers:

Storage rooms in which filling operations take place must have a conducting floor.

Never use pressure to empty: container is not a pressure vessel. Keep container tightly closed. Prevent unauthorized access. Opened containers must be carefully resealed and kept upright to prevent leakage.

Keep container tightly closed. No smoking.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

· Further information about storage conditions:

Always keep in containers of the same material as the original one. Store in a dry, well ventilated place. Keep away from heat and direct sunlight. Store in accordance with the particular national regulations concerning water pollution.

Keep away from sources of ignition.

Note Instructions on the label.

· 7.3 Specific end use(s) No further relevant information available.

* SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Additional information about design of technical systems:

If relevant apply technical measures to comply with the occupational exposure limits. This can be by a good general extraction and-if practically feasible, be achieved by local exhaust ventilation.

· Components with critical values that require monitoring at the workplace:

Numerical data - if specified - are taken from the valid national lists.

141-78-6 Ethyl acetate (30-50%)

OEL Short-term value: 1468 mg/m³, 400 ppm

Long-term value: 734 mg/m³, 200 ppm

IOELV

(Contd. on page 5)

IE —

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 02.08.2022

Version number 2

Revision: 02.08.2022

Trade name: **70GH325253 Additive X PET/ PA**

(Contd. of page 4)

· DNELs

141-78-6 Ethyl acetate

Dermal DNEL workers 63 mg/kg bw/d (human)

Inhalative DNEL workers 734 mg/m³ (human)

28182-81-2 Hexamethylene-diisocyanate-homopolymer

Inhalative DNEL workers 0.5 mg/m³ (human) (local effect)

· PNECs

141-78-6 Ethyl acetate

PNEC 0.22 mg/kg (soil)

PNEC STP 650 mg/l (STP)

28182-81-2 Hexamethylene-diisocyanate-homopolymer

PNEC 53,182 mg/kg (soil)

PNEC STP 38.3 mg/l (STP)

· 8.2 Exposure controls

· Personal protective equipment

· Breathing equipment:

The use of respiratory protective measures, such as masks with filters for organic Vapours and dusts / mists are, in the absence of appropriate technical equipment, necessary for the protection of the employee. If exposure is above the exposure limit, then an appropriate, approved respirator must be worn. Please refer to the appropriate EU standard 14387.

· Protection of hands:

For prolonged or repeated contact use gloves.

Barrier creams may help to protect exposed skin, they should however not be applied once have come into contact with the product.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· Material of gloves

Applicable for example are gloves of KCL GmbH, D 36124 Eichenzell, e-mail: vertrieb@kcl.de with following specification (Laboratory test according EN 374)

Recommended protective glove:

Article / Name /Material / Thickness Material / Breakthrough Time Remarks

Nr. 898/ Butoject / Butyl / 0,7 mm Level 6 > 480 min. by fullcontact.

Nr. 890/ Vitoject / Viton / 0,7 mm Level 1 > 10 min. by splash contact

This recommendation is only for the product delivered by us and its intended purpose.

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Use safety eyewear designed to protect against splash of liquids.

· Body protection:

Working clothes must not consist of textiles which show a dangerous melting behaviour in case of fire.

All parts of the skin should be washed after contact.

— IE —

(Contd. on page 6)

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 02.08.2022

Version number 2

Revision: 02.08.2022

Trade name: **70GH325253 Additive X PET/ PA**

(Contd. of page 5)

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 - Form: liquid
 - Colour: according to the tradename of the product
- **Smell:** characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
 - Melting point/freezing point: not determined
- **Flash point:** -4 °C
- **Inflammability (solid, gaseous)** Highly flammable.
- **Ignition temperature (Main Solvnt):** 460 °C
- **Decomposition temperature:** Not determined.
- **Self-inflammability:** Not determined.
- **Explosive properties:** Not determined.
- **Critical values for explosion:**
 - Lower: approx. 2.1 Vol %
 - Upper: approx. 11.5 Vol %
- **Vapour pressure:** Not determined.
- **Density at 20 °C** 0.9474 g/cm³
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
Not applicable.
- **Solubility in / Miscibility with**
 - Water: partly or not miscible
- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
 - dynamic: Not determined.
 - kinematic: Not determined.
- **Solvent separation test**
 - Organic solvents: 30-50 %
- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** No further relevant information available.
- **10.3 Thermal decomposition / conditions to be avoided:**
Stable under recommended storage and handling conditions (see section 7).
- **10.4 Conditions to avoid** No further relevant information available.

(Contd. on page 7)

— IE —

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 02.08.2022

Version number 2

Revision: 02.08.2022

Trade name: **70GH325253 Additive X PET/ PA**

(Contd. of page 6)

- **10.5 Incompatible materials:**

Keep well away from oxidising agents and strongly alkaline or strongly acid materials in order to avoid exothermic reactions.

- **10.6 Hazardous decomposition products:**

Exposition to high temperatures may produce hazardous decomposition products such as: carbon dioxide, carbon monoxide and smoke.

SECTION 11: Toxicological information

The mixture has been assessed following the additivity method of the CLP Regulation (EC) No 1272/2008 and/or GHS -Regulation and classified for toxicological hazards accordingly. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in skin dryness. The product may be absorbed through the skin.

- **11.1 Information on toxicological effects**

- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values that are relevant for classification:**

141-78-6 Ethyl acetate

Oral LD50 5,620 mg/kg (rbt)

Dermal LD50 >18,000 mg/kg (rabbit)

Inhalative LC50 56,000 mg/m³ (rat) (4h)

28182-81-2 Hexamethylene-diisocyanate-homopolymer

Oral LD50 >2,500 mg/kg (rat)

Dermal LD50 >2,000 mg/kg (rat)

Inhalative LC50 390 mg/m³ (rat)

- **Specific symptoms in biological assay:**

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

- **Serious eye damage/irritation**

Causes serious eye irritation.

- **Respiratory or skin sensitisation**

May cause an allergic skin reaction.

- **Additional toxicological information:**

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

- **Carcinogenicity** Based on available data, the classification criteria are not met.

- **Reproductive toxicity** Based on available data, the classification criteria are not met.

- **STOT-single exposure**

May cause respiratory irritation. May cause drowsiness or dizziness.

- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

— IE —
(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.08.2022

Version number 2

Revision: 02.08.2022

Trade name: 70GH325253 Additive X PET/ PA

(Contd. of page 7)

SECTION 12: Ecological information

The Product should not be allowed to enter drains of water courses or soil.

12.1 Toxicity**Aquatic toxicity:****141-78-6 Ethyl acetate**

Fish toxicity 230 mg/l (fish) (LC 50; 96h)

Daphnia toxicity 717 mg/l (daphnia) (EC50; 48h)

Algae toxicity 5,600 mg/l (algae) (EC50; 48h)

28182-81-2 Hexamethylene-diisocyanate-homopolymer

Fish toxicity >100 mg/l (fish) (LC50 96h)

Daphnia toxicity >100 mg/l (daphnia) (EC50 48h)

Algae toxicity >1,000 mg/l (algae) (ErC50 72h)

12.2 Persistence and degradability No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation** Do not allow to enter drains.**European waste catalogue**

08 03 12* waste ink containing hazardous substances

Uncleaned packagings: Waste**Recommendation:**

Emptied containers should be disposed off into scrap recycling or reconditioning respectively.

Not orderly emptied cans and ink remnants are special waste.

SECTION 14: Transport information

Transport only in accordance with ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport.

14.1 UN-Number**ADR, IMDG, IATA**

UN1263

14.2 UN proper shipping name**ADR**

1263 PAINT RELATED MATERIAL

IMDG, IATA

PAINT RELATED MATERIAL

(Contd. on page 9)

IE —

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.08.2022

Version number 2

Revision: 02.08.2022

Trade name: **70GH325253 Additive X PET/ PA**

(Contd. of page 8)

· 14.3 Transport hazard class(es)

· ADR



- Class 3 (F1) Flammable liquids.
- Label 3

· IMDG, IATA



- Class 3 Flammable liquids.
- Label 3
- 14.4 Packing group
- ADR, IMDG, IATA II
- 14.5 Environmental hazards:
- Marine pollutant: No
- 14.6 Special precautions for user Warning: Flammable liquids.
- Kemler Number: 33
- EMS Number: F-E, S-E
- Stowage Category B
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

· Transport/Additional information:

- ADR
- Excepted quantities (EQ): E2
- Limited quantities (LQ) 5L
- Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
- Transport category 2
- Tunnel restriction code D/E

· IMDG

- Limited quantities (LQ) 5L
- Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
- UN "Model Regulation": UN 1263 PAINT RELATED MATERIAL, 3, II

— IE —

(Contd. on page 10)

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 02.08.2022

Version number 2

Revision: 02.08.2022

Trade name: **70GH325253 Additive X PET/ PA**

(Contd. of page 9)

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
 - **Directive 2012/18/EU**
 - **Named dangerous substances - ANNEX I** None of the ingredients is listed.
 - **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
 - **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
 - **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
 - **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
None of the ingredients is listed.
 - **REGULATION (EU) 2019/1148**
 - **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
None of the ingredients is listed.
 - **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
None of the ingredients is listed.
 - **Regulation (EC) No 273/2004 on drug precursors**
None of the ingredients is listed.
 - **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
None of the ingredients is listed.
 - **National regulations**
The product is subject to classification in accordance with the prevailing version of the regulations on hazardous materials.
- **Information about limitation of use:**
 - **VOC-Content (EU):** 50.00 %
 - **Other regulations, limitations and prohibitive regulations**
 - **Swiss VOC-Regulation** 50.00 %
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The information on this Safety Data Sheet is based on the present state of our knowledge and on current GHS Regulation and national laws. The user's working conditions are beyond our knowledge and control. It is always the responsibility of the user to take all necessary steps in order to fulfil the demands laid down in the local rules and legislation. The information in this Safety Data Sheet is meant as a description of the safety requirements of our product: it is not to be considered as a guarantee of the product's properties.

- **Relevant phrases**
 - H225 Highly flammable liquid and vapour.
 - H317 May cause an allergic skin reaction.
 - H319 Causes serious eye irritation.
 - H332 Harmful if inhaled.
 - H335 May cause respiratory irritation.
 - H336 May cause drowsiness or dizziness.
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

(Contd. on page 11)

— IE —

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.08.2022

Version number 2

Revision: 02.08.2022

Trade name: 70GH325253 Additive X PET/ PA

(Contd. of page 10)

ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

• * **Data compared to the previous version altered.**

— IE —