

## 1. PRODUCT IDENTIFICATION DISTRIBUTOR IDENTIFICATION

1.1. Data concerning the product: 2K HS Compact Harter XFCH

1.2. Intended use: **Hardening agent for two-ingredients acrylic primer.**

APP no.:020504

Distributor: AUTO – PLAST PRODUKT Sp. z o. o.

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Current safety data and technical information available at the website.



Date of MSDS preparation: 22.03.2010.

## 2. HAZARDS IDENTIFICATION

Pursuant to the regulations in force (see p. 15) the product is classified as hazardous.

### 2.1. Physical and chemical hazards:

- highly flammable liquid
- vapours create flammable and explosive mixtures with air
- vapours may float from the source of ignition and return in the form of flame
- heating up, spark or contact with fire may cause ignition
- liberates toxic gases in the conditions of fire

### 2.2. Hazard to health

Product contains isocyanates. Read the producer's instructions.

- the product is harmful
- the product may cause lung and skin damage if swallowed or touched
- the product is irritant
- Irritating action on skin:

### 2.3. Hazard to the environment.

- the substance is not classified as hazardous to the environment.
- avoid release to the environment.
- refer to special instructions/safety data sheets

## 3. COMPOSITION AND INFORMATION ON COMPONENTS

Product classification and marking was presented pursuant to the according to table 3.2 of appendix VI to decree of European Parliament and Council (EC) no. 1272/2008 (GHS decree), including 30 and 31 ATP to 67/548/EEC, on the basis of the data provided by the manufacturer and on the basis of general knowledge on the substances.

### 2.1. Hazardous components:

No.	WE no.(EINECS)	Product name:		
	CAS no.	R phrase	Classification	Contents [%]
	Index no.			
1.	500-060-2	Homopolymer HDI		
	28182-81-2	The substance is a polymer. The classification given by a producer.		
	None	<b>R43</b>	<b>Xi</b>	<b>10 ÷ 50</b>
2.	500-299-2	Homopolymer TDI		
	9017-01-0	The substance is a polymer. The classification given by a producer		
	None	<b>R43</b>	<b>Xi</b>	<b>10 ÷ &lt;50</b>
3.	204-658-1	Butyl acetone		
	123-86-4			
	607-025-0-1	<b>R10;R66; R67</b>		<b>25 ÷ 50</b>
4.	215-535-7	Xylene; Dimethylbenzene – isomers mixture		
	1330-20-7			
	601-022-00-9	<b>R10; R20/21; R38</b>	<b>Xn; Xi</b>	<b>10 ÷ &lt;25</b>
5.	202-849-4	Ethylbenzene		
	100-41-4			
	601-023-00-4	<b>R11; R20</b>	<b>F; Xn</b>	<b>&lt;2,5</b>
6.	265-199-0	Solvent – kerosene (petroleum), light aromatic hydrocarbons; low-boiling petrol – non-specified		
	64742-95-6	H and P notes used. Does not contain benzene.		

	649-356-00-4	<b>R10; R37; R51/53; R65; R66; R67</b>	<b>Xn; Xi; N</b>	<b>&lt;2,5</b>
7.	247-722-4	Toluene diisocyanate;		
	26471-62-5	TDI		
	615-006-00-4	<b>Carcinogen. Cat. 3 R40; R26; R36/37/38; R40; R42/43; R52/53</b>	<b>T+; Xi</b>	<b>&lt;0,1</b>

The meaning of symbols and contents of R phrases – see page 16.

**4. FIRST AID MEASURES**

**4.1. General recommendations:**

*If any non-desirable symptoms occur, call the doctor immediately or take injured to hospital, show the product packing, label or MSDS.*

**4.2. First aid in case of inhalation exposure:**

- take the injured person to a well ventilated room
- place the injured person in half-lying position, loose clothing, make sure that there are no objects or secretion impeding breathing, in the mouth
- protect from heat loss
- in case of breathing stop apply oxygen or perform artificial respiration
- medical attention necessary

**4.3. First aid in case of eye contamination:**

- flush contaminated eyes, with eyelids open, with a lot of running water, for 10-15 minutes, avoid strong water jet which may cause the risk of damaging cornea.
- do not use any liquids for rinsing eyes or any ointments before medical consultation.
- in case if the injured person uses contact lenses, remove them
- medical attention necessary

**4.4. First aid in case of skin contamination:**

- take off dirty clothing
- wash skin exposed to contact with the product, or only suspected to be exposed, with plenty of water with soap
- get medical attention.

**4.5. First aid in case of swallowing:**

- rinse mouth with a lot of running water
- do not induce vomiting
- medical attention necessary

**5. FIRE FIGHTING MEASURES**

**5.1. Fire hazards:**

- highly flammable liquid
- vapours create flammable and explosive mixtures with air
- vapours may float from the source of ignition and return in the form of flame
- heating up, spark or contact with fire may cause ignition
- liberates toxic gases in fire

**5.2. Recommended extinguishing media:**

- carbon dioxide (CO<sub>2</sub>)
- extinguishing powders
- foams resistant to alcohol
- water – dispersed currents
- in case of fire of products containing isocyanates it is allowed to use the extinguishing foams, resistant to alcohol and water only when the fire is large and propagating. Do not use compact water jets on the product surface.

**5.3. Not recommended extinguishing media:**

- water – strong jet

**5.4. Special hazards:**

**Caution:** *Do not let water into the containers.*

- Containers expose to fire or high temperature cool with water, from a safe distance, and if this is not possible, remove them from hazard area
- during the burning of the product smoke containing chemical substances hazardous to health such as carbon monoxide and carbon dioxide, are created
- the explosion of the container may occur in the conditions of fire

**5.5. General advice:**

- Alarm about fire
- remove all people who do not take part in rescue operation from danger zone;
- if the need arises, order evacuation
- avoid inhaling the smoke

- remove all sources of ignition
- wear protective clothing and use protective equipment
- protect respiratory tract
- cool containers exposed to contact with fire with water
- do not let extinguishing media enter the sewage system

**5.6. Hazardous products of combustion:**

- carbon oxides
- nitrous oxides
- hydrogen cyanide and cyanides
- toxic fumes and smokes

**5.7. Personal protection:**

- self-contained breathing apparatus and protective clothing
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**6. ACCIDENTAL RELEASE MEASURES**

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**Notice:** *Explosion endangered area - vapours create flammable and explosive mixtures with air*

**Notice:** *Contamination or humidity cause the isocyanates reaction with the carbon dioxide releasing, which may raise the pressure in the container*

**6.1. General advice:**

- in case of releasing large amounts, notify competent services about the accident
- remove all people who do not take part in repairs from danger zone

**6.2. Personal protection:**

- when removing large amounts of the product, wear self-contained breathing apparatus with a mask
- when removing, do not breathe in product vapours
- avoid contact with releasing product
- use protective gloves and protective clothing
- Apply tight protective goggles with side cover or an adequate protective mask

**6.3. Detailed advice:**

- remove all sources of ignition
- do not smoke

**6.4. Environmental precautions:**

- Eliminate spillage (shut off liquid flow, seal, damaged container put in emergency container)
- avoid the contamination of groundwater, protect sink basins
- do not let the product enter the sewage system or draining system
- if the product reached the water or draining system, contaminated the earth or flora, notify competent services

**6.5. Cleaning procedures:**

- small amounts of released product wipe with paper or a cloth, put in a closed, properly marked container
  - bigger amounts of released product cover up with inflammable absorbing material (sand, diatomaceous earth, universal binding material), put in a closed, properly marked container
  - in case of big spillage, embark the place where the liquid accumulates
  - eliminate all possible sources of ignition, do not smoke
  - collected absorbing materials also create fire hazard
  - air the rooms which the product reached
  - contaminated surfaces should be washed with the following mixtures:
    - water (45 parts V/V); ethanol or isopropanol (50 parts V/V); water ammonia solution with density 0.88 g/cm<sup>3</sup> (5 parts V/V); this mixture is flammable
    - water (95 parts); sodium carbonate (5 parts); this mixture is non-flammable
    - washing should be preceded with covering the contaminated surface with one of those mixtures
  - wash the place of spillage after removing the material
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**7. HANDLING AND STORAGE**

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**Notice:** *Explosion endangered area - vapours create flammable and explosive mixtures with air*

**Notice:** *Contamination or humidity cause the isocyanates reaction with the carbon dioxide releasing, which may raise the pressure in the container*

**7.1. Handling the product:**

- product vapours may create flammable and explosive mixtures with air; when handling the product, ensure efficient air circulation (general ventilation of the room and local exhaust ventilation); do not let product vapours concentrations in the air, the mixtures of which with air may be explosive, and concentrations exceeding the values of hygienic standards
- Do not inhale the product vapours, avoid direct contact of product with skin and eyes; use adequate personal protection measures
- do not allow the contact of the product with hot surface or flame, do not work near the sources of ignition, do not use sparking tools, absolute ban on smoking
- do not heat, do not cut and do not squeeze the containers with the product or its remains
- provide easy access to extinguishing media and the equipment necessary to remove the spillage of the product

- handle the product pursuant to the general principles of work health and safety concerning chemical substances; strictly follow the proceeding procedures; when handling the product, apply general work health and safety regulations contained in the Regulation of the Minister of Labour and Social Policy dated 11th June 2002 (Dz. U. no. 91 dated 2001, item 811); observe the advice included in the instructions provided by the manufacturer
- do not eat, drink and smoke when handling the product, except for the places designed for this; wash hands before the breaks and after work, if necessary use hand cream
- do not allow for the contamination of skin, eyes and clothing
- avoid long-term and repeated exposure
- work in ventilated rooms

**7.2. Storage:**

- store the product in cool, dry and well ventilated rooms
- store the product in original and tightly closed containers
- optimum storage temperature from 15°C to 25°C
- previously opened containers store vertically to make the leakage of the product impossible
- Protect the containers before direct action of sunlight, sources of heat, keep away of the sources of ignition; ban on smoking in the warehouse
- do not store near food
- do not let water enter the container

**7.3. Requirements concerning the room:**

- cool, dry and well ventilated.

**7.4. Package:**

- for safety reasons, it is recommended to store the product in original packages
- Store in tightly closed, adequately marked containers
- protect packages from mechanical damage

**8. EXPOSURE CONTROL AND PERSONAL PROTECTION**

**8.1. Hazard to health**

Personnel medical examinations as well as tests and measurements of harmful factors should be performed according to regulations in force.

Pursuant to the regulation of the Council of Ministers dated 30<sup>th</sup> July 2002 on the list of works forbidden to women (Dz. U. no. 127 dated 2002, item 1192), pregnant women and breast-feeding women are forbidden to perform operations if organic solvents concentration exceeds 1/3 value of permitted values

According to the Decree of Government from 30.07.2002 changing the decree regarding list of works forbidden for adolescents (Journal of Laws No. 127 pos. 1091 from 2002), working in contact with isocyanates and diisocyanates is forbidden for adolescents.

**8.2. Precautions:**

- Store and use well ventilated room.

**8.3. Personal protection:**

- Thoroughly wash the whole body after work.
- Wash contaminated clothing and footwear before another use

**8.4. Hazard to health**

Pursuant to the regulation of the Minister of Labour and Social Policy dated 29<sup>th</sup> November 2002 (Dz. U. no. 217 item 1833) with the amendment (Dz. U. No. 212 item 1769 dated 2005):

No.	CAS no.	Chemical substance name:	Highest admissible concentration in mg/m <sup>3</sup> depending on time of exposure during one shift.		
			NDS	NDSCh	NDSP
1.	123-86-4	Butyl acetone	200	950	-
2.	1330-20-7	Xylene	100	not set	-
3.	100-41-4	Ethylbenzene	100	350	-
4.	26471-62-5	Toluene diisocyanate	0,007	0,021	-

Solvent – kerosene is not in the list.

Below, the highest admissible concentration for fuels – derivatives of petroleum included in the list:

Extraction naphtha:           NDS: 500 mg/ m<sup>3</sup>  
   NDSCh: 1500 mg/m<sup>3</sup> (parallel marking of benzene in the air obligatory)

Petrol for paints:            NDS: 300 mg/ m<sup>3</sup>            NDSCh: 900 mg/ m<sup>3</sup>

Oil:                                NDS: 100 mg/ m<sup>3</sup>            NDSCh: 300 mg/m<sup>3</sup>

**8.5. Recommended monitoring procedures:**

- PN-89/Z-01001/06. Air purity protection. Names, definitions and units. Terminology concerning air quality tests at work places.
- PN-89/Z-04008/07. Air purity protection. Collecting samples. Principles of collecting air samples in work environment and the interpretation of results.

- PN-68/Z-04051 Determination of ethyl acetate and butyl acetate in the air.
- PN-78/Z-04119. Sheet 01. Air purity protection. Tests for the contents of acetic acid esters Determination of acetates: methyl, ethyl, propyl, butyl and amyl at work stations with gas chromatography method along with sample enriching.
- PN-89/Z-04023. Sheet 02. Air purity protection. Tests on the contents (in the mixtures) of harmful substances separating from nitrocellulose painted goods. Determination of acetone, alcohols: ethyl, n-butyl, isobutyl, ethoxyethyl, butoxyethyl; acetates: ethyl, n-butyl, ethoxyethyl, toluene and xylene at work stations with gas chromatography method.
- PN-78/Z-04116. Sheet 01. Air purity protection. Tests for xylene contents . Determination of xylene at work stations with gas chromatography method.
- PN-81/Z-04134/01. Air purity protection. Tests defining the contents of oil and its components. Determination of petrol odours sum for extraction, petrol for lacquers and petroleum on work stations with gravimetric method
- PN-81/Z-04134/02. Air purity protection. Tests defining the contents of oil and its components. Determination of petrol odours sum for extraction, petrol for lacquers and petroleum on work stations with gas chromatography method along with sample enriching
- PN-81/Z-04134/03. Air purity protection. Tests defining the contents of oil and its components. Determination of C petrol odours for lacquers at work stations with gas chromatography method along with sample enriching.
- PN-92/Z-04227/02. Air purity protection. Test for oil contents. Determination of petroleum vapours at work stations with gas chromatography methods.
- PN-79/Z-04081. Sheet 01. Air purity protection. Tests for contents of ethylobenzene. Determination of ethylobenzene at work stations with gas chromatography method along with sample enriching.
- PN-81/Z-04131/01. Air purity protection. Tests for contents of diisocyanates.
- Toluene diisocyanate – determination method. Bases and methods of work environment assessment. Warsaw, CIOP 1998, No. 19.

**8.6. Treshold Limit Values in biological material:**

**Xylene:**

- determined substance: methylhippuric acid
- Treshold Limit Values in biological material: 1.4 g/l in urine

**Ethylobenzene:**

- determined substance: mandelic acid
- Treshold Limit Values in biological material: 20 mg/h in urine

**8.7. Hygienic advice:**

Avoid direct contact of the product with skin and eyes and inhaling the product vapours; use the product in the rooms with efficiently working ventilation and, if necessary, use respiratory tract protection measures; immediately take off contaminated clothing and wash contaminated skin with water with soap; do not eat, drink and smoke when handling the product, except for the places designed for this, wash hands before breaks at work and after finishing work with the product, use hand cream when necessary.

When substance concentration is determined and known, personal protection media should be selected with the consideration of the concentration of the substance occurring at a given work station, time of exposure and the activities performed by the employee pursuant to the catalogue "Individual protection media" issued by Central Institute for Labour Protection.

In case of emergency, even if the concentration of the substance at work station is not know, use individual protection media of the highest recommended protection class.

**8.8. Personal protection ensuring adequate protection:**

- hands: protective gloves made of materials resistant to the action and permeating of organic solvents
- skin: protective clothing
- respiratory tract: ensure good ventilation.
- eyes: protective goggles or mask protecting the face

Notice! Recommended protective equipment must be certified for safety mark pursuant to the Regulation of the Council of Ministers dated 9<sup>th</sup> November 1999 on the list of goods manufactured in Poland as well as goods imported to Poland for the first time, which may cause danger or serving the protection or saving life, health or the environment, being subject to the certification for safety mark and marking with this mark and the goods subject to the obligation of issuing the declaration of conformity by the manufacturer.

The employer is obliged to make sure that the used individual protection media as well as protective clothing and footwear had the protective usable properties and assure their adequate washing, maintenance, repair and decontamination.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

form, appearance:	liquid
colour:	transparent
odour:	characteristic
pH	not determined
boiling point:	126°C

melting point:	not determined
burning temperature:	not determined
flash point	28°C
autoignition temperature:	397°C
combustibility:	highly flammable liquid
explosive properties:	The product is not endangered with explosion; vapours create explosive mixtures with air
hazard danger boundaries:	
- lower:	1,2% vol.
- upper:	8,0% vol.
oxidizing properties:	none
vapour pressure:	not determined
density:	7,8 mmHg (in the temperature of 20°C)
vapour density:	0,98 g/cm <sup>3</sup> (in the temperature of 20°C)
solubility:	
- in water:	does not mix – reacts with water by emitting warmth
- in organic solvents:	does mix
Distribution ratio n- octanol/water	not determined
Viscosity:	16s/4mm <sup>2</sup>

## 10. STABILITY AND REACTIVITY

### 10.1. Stability:

- stable in normal conditions of application and storage

### 10.2. Conditions to avoid:

- empty containers may contain explosive vapours of the product
- high temperature
- sources of ignition

### 10.3. Materials to avoid:

- strong oxidizing agents
- strong acids and bases
- isocyanates react violently, often with heat releasing, with many groups of chemical substances, e.g. alcohols, amines, phenols, amides, thiols, carbamates, urea derivatives, organometallic compounds, surface-active products; under the influence of humidity they become polymerized with releasing of heat and carbon dioxide; they reveal corrosive influence on zinc, copper, aluminium and their alloys, destroy plastics and rubber

### 10.4. Hazardous products of decomposition/combustion:-

- during the combustion the toxic gases may be produced, containing e.g. carbon monoxide and dioxide, hydrogen cyanide and cyanides; during the decomposition also toluene diamines may be produced
- carbon monoxides
- nitrous oxides
- hydrogen cyanide and cyanides
- toxic gases and smokes

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Hazards to health

*Product contains isocyanates. Read the producer's instructions.*

- the product is harmful
- the product may cause lung damage if swallowed
- the product is irritant
- irritating action on skin

### 11.2. Toxic doses and concentrations:

#### Butyl acetate:

Odour recognition threshold:	2,90 ÷ 10 mg/ m <sup>3</sup>
LD50 (rat, orally):	14,000 mg/kg
LC50 (rat, inhalation):	9,660 mg/m <sup>3</sup> /4 hours
LD50 (rabbit, skin):	>5,000 mg/kg
TCL0 (man, inhalation):	966 mg/m <sup>3</sup>
LD50 (rabbit, skin):	13000 mg/kg

### Xylenes:

Odour recognition threshold: 0,9 ÷ 9 mg/m<sup>3</sup>  
 LD50 (rat, orally): 4300 mg/kg  
 LC50 (rat, inhalation): 22100 mg/ m<sup>3</sup>/ 4 hours

**Solvent – kerosene**

LD50 (rat, orally): 6800 mg/kg  
 LC50 (rat, inhalation): 10,2 mg/ m<sup>3</sup>/ 4 hours  
 LD50 (rabbit, rat, skin): 3400 mg/kg

**Ethylobenzene**

Odour recognition threshold: 0,4 ÷ 206 mg/m<sup>3</sup>  
 LD50 (rat, orally): 3500 mg/kg  
 LC50 (rat, inhalation): 17800 mg/ m<sup>3</sup>  
 TCL0 (man, inhalation): 442 mg/m<sup>3</sup> / 8 hours

**11.3. Effects of acute exposure at people (for the product):**

**Caution:** product contains isocyanates – inhalation of vapours may cause asthmatic reactions; characteristic symptoms of inhalation exposition are cough, throat pain, pressure in the chest, short breath, eyes redness, lacrimation; the exposition results may be bronchitis, pneumonia and/or lungs edema; the asthmatic reactions and lungs edema symptoms may appear after few hours from the exposition (asthmatic symptoms often appear at night, lungs edema symptoms may appear even after 48 hours), moreover they may be intensified by the physical effort; product inhalation in concentration exceeding TLV-STEL may cause the increasing headache, and in high concentration the narcotic influence, as well as other symptoms, connected with the product components influence; after the exposition to the high concentration of isocyanates in the product the headache and problems with concentration may remain for the long time (even up to 4 years)

**Chronic exposure results:**

- repeating inhalation exposition may cause allergy and asthma (allergy appears usually after a few months of work with isocyanates, the initial symptoms are similar to the cold)
- there are reports of chronic lungs function deterioration in case of personnel subjected to isocyanates
- contact with skin may cause allergy, moreover, frequent contact may be the reason of skin degreasing and inflammatory state
- nervous system dysfunction may appear (headache and dizziness), and/or inflammatory states of upper respiratory system
- drying, cracking, chronic dermatitis
- conjunctiva irritation and chronic conjunctivitis
- inflammatory states of upper respiratory system with throat aches
- functional disturbances in the nervous system
- smell disturbances

**Uwaga:** persons with the allergic inclinations must maintain special caution during work with the product; persons with asthma, chronic diseases of the respiratory system and with allergy to the isocyanates should avoid the product.

**Skin contact:**

Harmful in case of skin absorption. Repeated exposure may cause skin dryness or cracking. The product may cause sensitisation by skin contact. Persons with allergic predispositions should be particularly careful. Skin irritation is possible and in extreme cases burns may occur (at long-term. constant exposure).

**Eye contact:**

Vapours may cause eye mucosa irritation manifesting itself with reddening, lacrimation and pain. It causes eye irritation in case of direct contact.

**Swallowing:**

The product may cause lung damage if swallowed. Irritation of mucosa of alimentary system, stomachaches, nausea, vomiting, diarrhoea (possibility of burning crotch area) and symptoms connected with the action of the substance on the system.

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**12. ECOLOGICAL INFORMATION**

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**12.1. Hazards for the environment.**

- The product is not classified as very hazardous to the environment
- Avoid release to the environment.
- Refer to special instructions/safety data sheets

**12.2. Decomposition possibilities:****Butyl acetate:**

Toxic concentration limit for:

- |              |                                 |                                  |
|--------------|---------------------------------|----------------------------------|
| - fish:      | <i>Salmo gairdneri</i> LC0:     | 20 mg/dm <sup>3</sup>            |
|              | <i>Pimephales promelas</i> LC0: | 18 mg/dm <sup>3</sup> /96 hours  |
|              | <i>Lepomis macrochirus</i> LC0: | 100 mg/dm <sup>3</sup> /96 hours |
| - Shellfish: | <i>Daphnia magna</i> LC0:       | 39 mg/dm <sup>3</sup>            |

Deadly concentration for shellfish:

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*Daphnia magna* LC50: 205 mg/dm<sup>3</sup>

## Xylene:

Acute toxicity for fish:- *Pimephales promelas* LC50: 16,1 mg/dm<sup>3</sup>/96 hours  
*Salmo gairdneri* LC0: 8 mg/dm<sup>3</sup>/96 hours  
*Lepomis macrochirus* LC0: 16,1 mg/dm<sup>3</sup>/96 hours  
*Carassius auratus* LC50: 16,1 mg/dm<sup>3</sup>/96 hours  
Acute toxicity for shellfish: *Daphnia magna* EC50: 3,82 mg/dm<sup>3</sup>/48 hours

## Toxic concentration limit for petrols (aliphatic hydrocarbons):

### Toxic threshold concentration for:

- fish: *Salmo gairdneri irideus* and *Alburnus bipunctatus*: >40 mg/dm<sup>3</sup>  
- plankton: *Vorticella campunulla*: 55 mg/dm<sup>3</sup>  
*Gammarus pulex*: 70 mg/dm<sup>3</sup>  
*Tubiflex tubiflex*: 120 mg/dm<sup>3</sup>

### Deadly concentration for fish:

*Salmo gairdneri irideus*: 100 mg/dm<sup>3</sup>

Concentration causing the change of taste of fish: 0.0005 mg/dm<sup>3</sup>

Concentration changing the smell of water: 0,06 ÷ 0,2 mg/dm<sup>3</sup>

Concentration causing the disturbances of oxygen-free processes:  
sewage deposit fermentation: above 400 mg/dm<sup>3</sup>

## Ethylbenzene:

Acute toxicity for fish:- *Salmo gairdneri* LC0: 14 mg/dm<sup>3</sup>/96 hours  
Toxic threshold concentration for crustacean: *Daphnia magna* EC50: 137 mg/dm<sup>3</sup>/24 hours  
Deadly concentration for fish: *Lepomis macrochirus* LC0: 169 mg/dm<sup>3</sup>/24 hours  
*Pimephales promelas* LC50: 49 mg/dm<sup>3</sup>/24 hours  
*Lebistes reticulatus* LC50: 97 mg/dm<sup>3</sup>/24 hours

## 12.3. Mobility:

- no data
- product practically does not mix with water

## 12.4. Permanence and degradability:

### Butyl acetate:

Elimination data:

Testing method: OECD 301D; 92/69/EEC, V, C.4 E, active sediment

Analysis method: BOD for the theoretical oxygen demand (ThOD)

Elimination degree: >90%/28days

Easily biodegradable (according to OECD criteria)

## 12.5. Bioaccumulation ability:

- no data

## 12.6. PBT properties assessment results:

- no data

## 12.7. Other harmful effects:

- content of chemically bounded chlorine: none
- content of chemically bounded or complexed ions of heavy metals: none

Follow the regulations. Do not allow for environment infiltration. Properly used product poses no threat for environment. Do not allow for surface and underground water or ground contamination. Do not introduce into sewage system. Do not remove product to sewers or water races.

## 13. DISPOSAL CONSIDERATIONS

### 13.1. Disposal:

#### Waste material proceedings:

Do not dispose in the sewage system. Do not let any material enter surface water, ground water and soil.

Small quantities (at the consumer's) treat as household waste.

Do not dispose large quantities of waste material in the sewage system. Utilize in authorized incineration plants or waste utilization plants, pursuant to the regulations in force (see item 15)

Waste code:	Waste kind
08 01 11	Wastes of paints and lacquers, containing organic solvents or other dangerous substances.
15 01 04	Metal packages.

## 14. TRANSPORT INFORMATION

### 14.1. Road transport:

Class ADR/RID:	3
UN material recognition no.:	1263
Classification code	F1

Danger recognition no.:	33
Package group:	III.
Label:	No. 3
Name in transport documentation:	1263 PAINTS

## 15. REGULATORY REGULATION

Product classification and marking are given according to decree of European Parliament and Council (EC) no. 1272/2008, and upon the basis of information from the producer.

### Package marking:

#### Product contains:

- Xylenes

**Product contains isocyanates. Read the producer's instructions.**

#### Warning marks:



**Xn Harmful product**

#### Hazard phrases:

R10 Flammable product  
 R20/21 Harmful action; the product may cause lung and skin damage  
 R43 May cause allergy in contact with skin

#### Phrases indicating conditions of safe usage:

S23 Do not breathe dispersed liquid  
 S36/37 Use proper protective clothes and gloves  
 S51 Use only in well ventilated rooms

**The product sheet is available on demand for professional users.**

#### Special notes:

In case of product retail sale for consumers, it is necessary to implement the following phrases of safe application:

- S2 Keep away from children
- S46 In case of swallowing immediately contact a physician – show package or label.

#### Current regulations:

- 1 Decree of European Council no. 1907/2006 from 16.12.2006 regarding registering, evaluation, certification and authorizations in range of chemicals (REACH), creation of European Chemicals Agency, changing Directive 1999/45/EC and cancelling decree of Council no. 793/93 and decree of Commission no.1488/94, as well as directives 76/769/EC, 91/155/EC, 93/67/EC, 93/105/EC and 2000/21/EC (30.12.2006 PL Official Journal of European Union L 396/1)
- 2 Decree of European Parliament and Council (EC) no. 1272/2008 from 16.12.2008 regarding classification, marking and packaging of substances and mixtures, amending and cancelling the directives 67/548/EEC and 1999/45/EC, and amending the decree (EC) no. 1907/2006 (known as GHS decree) (31.12.2008 PL Official Journal of European Union L 353)
- 3 Act dated 11<sup>th</sup> January 2001 on chemical substances and preparations (Dz. U. No 11 item 84 dated 2001) with subsequent amendments dated including Act dated 9<sup>th</sup> January 2009 on change of Act on chemical substances and preparations and some other acts (Dz. U. 2009 No 20 item 106)
- 4 Act 27<sup>th</sup> April 2001 on waste (Dz. U. No 62 item 628 dated 2001) together with the Regulation of the Minister of the Environment (Dz. U. No 152 item 1735)
- 5 Act dated 11<sup>th</sup> May 2001 on package and package waste (Dz. U. No. 63, item 638 dated 2001)
- 6 Proclamation of the Marshal of the Parliament of the Republic of Poland dated 4th July 2006 on announcing single text of the act - Environment Protection Law (Dz. U. No 129 item 902 dated 2006)
- 7 Act dated 28<sup>th</sup> October 2002 on land transport of hazardous materials (Dz. U. No 199 item 1671 dated 2002) with subsequent amendments
- 8 Regulation of Minister of Health of 2<sup>nd</sup> September 2003 on marking of dangerous substance and preparation packages (Dz. U. No 173 item 1679 dated 2003) with subsequent amendments of 9<sup>th</sup> November 2004 (Dz. U. No 260 item 2595 dated 2004) and 5<sup>th</sup> March 2009 (Dz. U. No 53 item 439 dated 2009)
- 9 Regulation of Minister of Health of 2<sup>nd</sup> September 2003 on criteria and classification method for chemical substances and preparations (Dz. U. No 171 item 1666 dated 2003) with subsequent amendment of 4<sup>th</sup> September 2007 (Dz. U. No 174 item 1222 dated 2007) and 5<sup>th</sup> March 2009 (Dz. U. No 43 item 353 dated 2009)
- 10 Regulation of the Minister of Labour and Social Policy dated 29<sup>th</sup> November 2002 on the highest allowed concentrations and intensity of agents harmful to health in the work environment (Dz. U. No. 217, item 1833 dated 2002). with the amendment (Dz. U. No 212 item 1769 dated 2005, Dz. U. No 161 item 114 dated 2007 and Dz. U. No 105 item 873 dated 2009)
- 11 Government announcement dated 16<sup>th</sup> January 2009 on the annexes A and B of the European Agreement concerning international transport of hazardous materials, coming into force (ADR), prepared in Geneva dated 30<sup>th</sup> September 1957 (Dz. U. No. 27, item 162 dated 2009)
- 12 Regulation of the Minister of Environment dated 27<sup>th</sup> September 2001 on waste catalogue (Dz. U. 2001 No 112 item 1206)
- 13 Regulation of the Minister of Labour and Social Policy dated 28<sup>th</sup> August 2003 amending the regulation on general work health and safety regulations (Dz. U. No. 169, item 1650 dated 2003).
- 14 Regulation of the Council of Ministers dated 10<sup>th</sup> September 1996 amending the regulation on the list of works forbidden to women (Dz. U. No. 196, item 545) with later amendment (Dz. U. No 127 item 1092 dated 2002)
- 15 Regulation of the Minister of Health dated 20<sup>th</sup> April 2005 on the tests and measurements of agents harmful to health in the work environment (Dz. U. No. 73, item 645 dated 2005) with amendment (Dz. U. No 241 item 1772 dated 2007)
- 16 Regulation of the Minister of Health and Social Welfare dated 30<sup>th</sup> May 1996 on conducting medical tests of employees, the scope of prevention in health care of the employees and doctor's statements issued for the purposes stated in the Labour Code (Dz. U. No. 69 item 332 dated 1996) with subsequent amendments (Dz. U. No 37 item 451 and Dz. U. No. 128, item 1405 dated 2001)
- 17 Regulation of the Council of Ministers dated 24<sup>th</sup> August 2004 on the list of works forbidden to the juvenile and the conditions of employing them at some works (Dz. U. No. 200 item 2047 dated 2004) with subsequent amendment (Dz. U. No 136 item 1145 dated 2005)

- 18 Regulation of Minister of Economy and Labour dated 5<sup>th</sup> July 2004 on the limitations, bans or production conditions, trading or the use of hazardous substances and preparations and the products containing them (Dz. U. No. 168 item 1762 dated 2004) with subsequent amendments (Dz. U. No 39 item 372 dated 2005, Dz. U. No. 127, item 887 dated 2006 and Dz. U. 200 No 190 item 1163)
- 19 Act dated 29<sup>th</sup> July 2005 on counteracting drug abuse (Dz. U. No. 179, item 1485 dated 2005) with the amendment (Dz. U. No. 120, item 826 dated 2006 and the Regulation (EC) No. 273/2004 of the European Parliament and the Council dated 11<sup>th</sup> February 2004. on the precursors of drugs (Dz. Urz. EC L 047 dated 18th February 2005) and the Regulation (EC) and the Council No. 111/2005 dated 22<sup>nd</sup> December 2004 defining the principles of supervising the trade with drugs precursors between the Community and the third countries (Dz. Urz. EC L 22 dated 26th January 2005, page 1; Dz. Urz. EC Polish special issue dated 2005, volume 48, page 1).

## 16. OTHER INFORMATION

### The meaning of symbols and the contents of R phrases included in item 3:

F	Highly flammable product
T+	Highly toxic product
Xn	Harmful product
Xi	Irritating product
N	Product hazardous for the environment
R10	Flammable product
R11	Highly flammable product
R20	Irritating to respiratory tract
R20/21	Irritating to respiratory tract and skin
R26	Toxic to respiratory tract
R36/37/38	Irritating to eyes, respiratory tract and skin
R37	Irritates respiratory tract
R38	Irritating action on skin
R40	Limited evidence of carcinogenic influence
R42/43	May cause allergy after the inhalation and in contact with skin
R43	May cause allergy in contact with skin
R51/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Very harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful action; the product may cause lung damage if swallowed
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Employees' medical tests and tests and measurements of the harmful factors to be made pursuant to the valid regulations. This material safety data sheet was prepared pursuant to the data coming from the MSDS provided by the manufacturer. The above information was prepared on the basis of current knowledge and experiences. It does not guarantee of the property of the product or quality specification and cannot be the basis for the complaint. The product should be transported, stored and applied pursuant to the regulations in force and good practice and hygiene of work.

The manufacturer does not bear responsibility for any losses arising directly or indirectly from the application of the above interpretation of the regulations or instructions..

The presented information cannot be applied for the mixtures of the product with other substances. The use of information given and the application of the product are not controlled by the manufacturer so it is the user's obligation to create adequate conditions for safe handling the product.

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