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# X60 - PU FOAM

#### SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier:

637000000 PU FOAM X60

\*Internal recipe UFI code: G9N5-104P-K00S-X3XM

\*It is only used to notify own products based on this recipe. It is not used to label products.

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

Uses: Bonding and sealing

Uses not recommended: other than the above

# 1.3 Details of the supplier of the safety data sheet:

A.M.P.E.R.E. SYSTEM

3 rue Antoine Balard - Z.I. du Vert Galant 95310 Saint-Ouen-I'Aumône - FRANCE Tel: + 33 1 34 64 72 72 / Fax: +33 1 30 37 55 17

#### 1.3.1 A person qualified and responsible for safety data sheet :

fds@amperesystem.com

# 1.4 Emergency telephone number :

UK: National Poisons Information Service - 0344 892 0111

Ireland: National Poisons Information Centre - Beaumont Hospital - PO Box 1297 Beaumont Road 9 Dublin: +353 1 809 2566 (Healthcare professionals-24/7) - +353 1 809 2166 (public, 8am - 10pm, 7/7)

### \*SECTION 2 HAZARDS IDENTIFICATION

# 2.1 Classification of the substance or mixture

# 2.1.1 Classification according to EU Regulation no. 1272/2008

Aerosol 1 H222, H229

Skin Irrit. 2 H315

Skin Sens. 1 H317

Eye Irrit. 2 H319

Acute Tox. 4 H332

Resp. Sens. 1 H334

STOT SE 3 H335

Carc. 2 H351

STOT RE 2 H373

Lact. H362

Aquatic Chronic 1 H410

Aquatic Acute 1 H400

The full text of "H-phrases" is stated in Section 16 of this Safety Data Sheet.

#### Classification notes:

Note: The calculation method takes into account the requirements of the CLP Regulation for the classification of aerosols in line with paragraph 1.1.3.7 of Annex I, Part 1, CLP.

## 2.1.2 The most serious adverse physic-chemical effects

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Build-up of explosive mixtures possible without sufficient ventilation.

# 2.1.3 The most serious adverse effects on human health

Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure. Causes serious eye irritation. May cause respiratory irritation. Causes skin irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Suspected of causing cancer. May cause harm to breast-fed children.

Persons with airways hypersensitivity (e.g. asthma, chronic bronchitis) must not come into contact with the product. Symptoms may also occur with overexposure airways after a few hours. Dust, vapours and aerosols are harmful to respiratory tract.

# 2.1.4 The most serious adverse effects on the environment

Very toxic to aquatic life with long lasting effects.

### 2.2 Label elements

# 2.2.1 The label elements in accordance with Regulation no. (EC) no. 1272/2008



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#### **DANGER**

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

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

H351 Suspected of causing cancer.

H362 May cause harm to breast-fed children.

H410 Very toxic to aquatic life with long lasting effects.

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352 IF ON SKIN: Wash with plenty of water and soap.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P410+P412 Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F .

P501 Dispose of container as hazardous waste.

EUH204 Contains isocyanates. May produce an allergic reaction.

Content: Diphenylmethanediisocyanate, isomers and homologues; alkanes, C14-17, chloro

# Information according to Commission REGULATION (EC) No 552/2009 of 22 June 2009, that must appear on the label of the product.

Persons already sensitized to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

# Information according to Commission Regulation (EC) No. 2020/1149, which must appear on the label of a product containing diisocyanates in a concentration $\geq 0.1\%$

As from 24 August 2023 adequate training is required before industrial or professional use.

#### 2.3 Other hazards

Medium chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% of linear chloroalkanes with a carbon chain length ranging from C14 to C17]: the substance has been included in the Candidate List for possible inclusion in Annex XIV of REACH. (published in accordance with Article 59 (10) of the REACH Regulation)

Reason for inclusion: PBT (Article 57d); vPvB (Article 57e)

# 2.4 Further information

Not to be used in a range of ignition sources.

Further information necessary to be added to the product label complying with other regulations, see Section 15.

#### \*SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

Prepolymer (composition polyol and polymeric isocyanate) with freon-free low-boiling propulsion medium

Hazardous substances:	Index No. EINECS. CAS No. Registration No.	Content (% ww)	Classification acc. (EC) No. 1272/2008
Diphenylmethanediisocyanate, isomers and homologues 1)*	- 618-498-9*** 9016-87-9 -	30-60	Carc. 2 H351 Acute Tox. 4 H332 STOT RE 2 H373 Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315 Resp. Sens. 1 H334 Skin Sens. 1 H317

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alkanes, C14-17, chloro; chlorinated paraffins, C14-17 <sup>2)</sup>	602-095-00-X 287-477-0 85535-85-9 01-2119519269-33-xxxx	≥ 30	Lact. H362 Aquatic Acute 1 H400 Aquatic Chronic 1 H410
Reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5-methanol and propylidynetrimethanol	904-153-2 - 01-2119488034-38-xxxx	1-4	Eye Irrit. 2 H319
Isobutane**	601-004-00-0 200-857-2 75-28-5	5-10	Flam. Gas 1 H220 Press. Gas H280
Dimethylether*	603-019-00-8 204-065-8 115-10-6 01-2119472128-37-xxxx	5-10	Flam. Gas 1 H220 Press. Gas H280
Propane	601-003-00-5 200-827-9 74-98-6	1-5	Flam. Gas 1 H220 Press. Gas H280

### Full text of H-phrases is described in Section 16 of this Safety Data Sheet

Diisocyanates, O = C = N - R - N = C = O: included (EU Regulation 2020/1149) in Annex XVII ( item 74) of the REACH Regulation (restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles)

### **SECTION 4 FIRST AID MEASURES**

# 4.1. Description of first aid measures

#### **General information**

In the case of health problems or if in doubt, seek medical advice and provide information from this safety data sheet. In case of unconsciousness place patient in recovery position and await ambulance.

# In case of inhalation:

Stop exposure to vapours and relocate patient from exposure to the fresh air. Ensure the patient is calm and rests, avoiding physical exertion. Avoid exposure to cold. In case of breathing difficulties seek medical help.

# In case of eye contact:

Remove contact lenses if used. Immediately rinse eyes with clean and lukewarm running water for at least 15 min. Eyes should be wide open especially to rinse under eyes lids. Seek medical advice if the pain or eye redness persists.

#### In case of contact with skin:

Remove contaminated clothing, rinse contaminated skin with soap under running water. If there are signs of a strong irritation (redness of the contaminated skin) or skin damage, seek medical advice.

# In case of ingestion:

Not anticipated. An aerosol spray.

Calm the victim and keep him/her in warm. Seek medical advice immediately and show product label or this safety data sheet.

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

In case of inhalation irritation of mucous membranes of the airways can occur in sensitive people.

Local skin irritation (redness, itchiness). Degreases and dries skin.

Local eye conjunctiva irritation (redness, burning eyes, eye watering)

May cause irritation to the gastrointestinal tract accompanied by abdominal pain and nausea, even vomiting and diarrhoea can occur.

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

<sup>&</sup>lt;sup>1)</sup> The substance Methylenediphenyl diisocyanate (MDI) including some specific isomers: was included (EU Regulation 552/2009) in Annex XVII (item 56) of the REACH Regulation (restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles).

<sup>&</sup>lt;sup>2)</sup> This substance is identified as a substance of very high concern. Reason for inclusion: PBT (Article 57d); vPvB (Article 57e)

<sup>\*</sup> Substance with exposure limit, see SECTION 8

<sup>\*\*</sup> The substance is not classified as a substance (CMR) carcinogenic, mutagenic or toxic for reproduction. The substance does not contain more than 0.1% 1,3-butadiene or any other substances classified as CMR."

<sup>\*\*\*</sup> This number is not an EC number. This is a Leaf. Well. which has no legal significance.

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In standard use immediate medical attention is not needed required only if the symptoms become more pronounced.

### **SECTION 5 FIREFIGHTING MEASURES**

# 5.1 Extinguishing media

#### Suitable extinguishing media:

Carbon dioxide (CO<sub>2</sub>), multipurpose powders, sand, soil

#### Unsuitable extinguishing media:

Water in small quantities and a full water jet. Water can be used only for cooling products (containers) near the fire.

#### 5.2 Special hazards arising from the substance or mixture:

Product contains easily flammable vapours and liquids.

In case of fire smoke is created and carbon oxides (CO and CO2) can occur. Incomplete combustion produces smoke and toxic gases (e.g. CO, NO, HCN), various hydrocarbons, aldehydes, soot.

Do not inhale combustion gases. As gases are usually heavier then air they gather at the lowest points and there is risk of re-ignition or explosion.

The propellant gas explosive limit with air at standard temperature and vapour or mist volume is 1.5 - 1.6 %.

Fire residues and contaminated fire extinguishing liquid must be disposed-off according to local rules and regulations. Remove products away from fire or at least cool them with a water jet.

#### 5.3 Advice for fire fighters:

In case of fire, wear suitable protective equipment – respiratory/breathing apparatus.

#### SECTION 6 ACCIDENTAL RELEASE MEASURES

# 6.1 Personal precautions, protective equipment and emergency procedures

# 6.1.1 For non - emergency personnel

Avoid contact with eyes and skin. Do not inhale any gases/vapours/aerosols. Ensure effective ventilation. Due to the potential exposure to hazardous agents, wear suitable protective equipment (resistant gloves, protective glasses and clothing). Eliminate all sources of ignition. Switch off all electrical devices that can create sparks (Sections 7 and 8). Gas vapours are heavier than air. Do not allow vapours to drain.

#### 6.1.2 For emergency responders

See section 8

# 6.2 Environmental precautions

Avoid draining into sewage/surface water/ground water.

# 6.3 Methods and material for containment and cleaning up

Cover the contaminated area with damp soil or sand and allow at least for 30 minutes for this to take effect. Then remove mechanically.

PU CLEANER product or organic solvents such as acetone can remove uncured foam.

# 6.4 Reference to other sections

See sections 7, 8 and 13

# SECTION 7 HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not inhale any gases/vapours/aerosols. Ensure effective ventilation. Due to the potential exposure to hazardous agents, wear suitable protective equipment (resistant gloves, protective glasses and clothing). Do not smoke. Switch off all electrical devices that can create sparks (Sections 7 and 8). Implement precautionary measures to prevent the accumulation of an electrostatic charge. Work in accordance with an instruction manual - special protective measures are not necessary.

# Preventive measures to protect the environment:

If used normally not necessary. In case of accident see section 6.

### Specific requirements or rules relating to the substance or mixture:

Store in a cool dry place. Keep away from heat sources.

# 7.2 Conditions for safe storage, including any incompatibilities

Store in a cool dry place. Keep away from heat sources. Avoid accumulation of static electricity. No smoking.

## Requirements on type of material used in the packaging / container:

Aerosol cans –material FE (40) or ALU (41). Do not store with food, beverages and animal feed. Keep out of reach of children The products are under constant pressure! Keep out of direct sunlight and do not expose to temperatures exceeding +50 °C

# 7.3 Specific end use(s)

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The mixture is applied by spraying on the areas to be filled with PU foam.

# SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

# 8.1.1 Substances for which following concentration of occupational exposure limit values are set (COMMISSION DIRECTIVE 2000/39/EC as amended)

Chemical name	CAS Number	Eight hours	Short-term
dimethylether	115-10-6	1920	-

# 8.1.2 Values DNEL and PNEC

CAS: 101-68-8: 4,4'-methylendiphenyl diisocyanate

DNEL	Co	Consumer		Workers				
Route	Acute Local effects	Acute Systemic effects	Chronic Local effects	Chronic Systemic effects	Acute Local effects	Acute Systemic effects	Chronic Local effects	Chronic Systemic effects
Oral		20 mg/kg bw/d	n.a.	n.a.				
Inhalation	0.05 mg/m <sup>3</sup>	$0.05 \text{ mg/ m}^3$	0.025 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup>	$0.1 \text{ mg/m}^3$	0.1 mg/m <sup>3</sup>	0.05 mg m <sup>3</sup>	$0.05 \text{ mg m}^3$
Dermal	17.2 mg/cm <sup>2</sup>	25 mg/kg bw/d	n.a.	n.a.	28.7 mg/cm <sup>2</sup>	50 mg/kg bw/d	n.a.	n.a.

# **PNEC**

Fresh water	1 mg/l
Marine water	0.1 mg/l
sporadic release	10 mg/kg
Sewage Treatment Plant	1 mg/kg
sediment (Fresh water):	PNEC sediment: As PMDI reacts with water, the contact between water and TDI must be strictly controlled. In addition, PMDI polymerizes in the presence of water, and therefore exposure of PMDI to sediments is likely to be negligible. PNEC sediments regarding the effect of PMDI cannot be derived.
Soil:	1 mg/kg of soil
Oral:	Reliable oral data are not available regarding the effects of PMDI on birds. Bird exposure is not expected and data from animal experiments indicate that PMDI oral toxicity is low.

CAS: 85535-85-9: alkanes, C14-17, chloro

DNEL	Consu	ımer			1	Workers		
Route	Acute Local effects	Acute Systemic effects	Route	Acute Local effects	Acute Systemic effects	Route	Acute Local effects	Acute Systemic effects
Oral								
Inhalation			0.58 mg/kg bw/d	2 mg/m3				6.7 mg/m3
Dermal				28.75 mg/kg bw/d				47.9 mg/kg bw/d

# **PNEC**

Fresh water	1 μg/l
Marine water	0.2 μg/l
sediment (Fresh water):	5 mg / kg
sediment (Marine water):	1 mg / kg
Sewage Treatment Plant	80 mg/l
Soil	0.34 mg/kg
sporadic release:	10.5 mg/kg (soil)

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Explanations:

bw / d - body weight per day

n.a. - not applicable

TDI - toluene diisocvanate

PMDI - polymeric diphenylmethane diisocyanate

Data obtained from safety data sheets of raw material suppliers and from other external sources.

DNELs: Derived no-effect level

PNEC: Estimation of the concentration at which no adverse effects occur

# 8.1.3 Recommended measurements methods in the work environment

Gas chromatography

### 8.1.4 The Values of biological exposure tests (BET)

Not listed

### 8.1.5 Exposure scenarios

They are not processed for the mixture. Relevant information from the Chemical Safety Reports of the registered substances contained is given in the body of the safety data sheet.

# 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

No special equipment is required provided that the product is handled in accordance with the general principles of hygiene and public safety. It is recommended that the product is used in well-ventilated areas.

### 8.2.2 Individual protection measures, such as personal protective equipment

The personal protective equipment used must comply with Regulation (EU) 2016/425 and Commission Directive (EU) 2019/1832).

# 8.2.2.1 A General hygienic and protective measures

While working with the product Do not eat, drink or smoke. Avoid contact with eyes and skin. When you stop working with the product wash your hands. Pregnant women should avoid inhalation and skin contact.

# 8.2.2.2 Respiratory protection

This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

# 8.2.2.3 Hand protection

Suitable materials for safety gloves; EN 374:

Polychloroprene - CR: thickness >=0,5mm; breakthrough time >=480min

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butvl rubber - IIR: thickness >= 0.5mm; breakthrough time >= 480min

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min

Recommendation: contaminated gloves should be disposed of.

# 8.2.2.4 Eye protection

Protective glasses

#### 8.2.2.5 Protecting skin (the whole body)

Protective work clothing; do not eat, drink or smoke while working; Remove soiled or contaminated clothing. Wash clothing before re-using. After work, Wash hands with warm water and soap and Use suitable skin care products.

# 8.2.3 Environmental exposure controls

Not necessary when used as required, avoid entering into surface waterways and sewers.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state	Liquid in aerosol containers
Colour	According to product specifications
Odour	Not specified
Odour Threshold	Not specified
Melting point/freezing point	Not assessed at the foam MDI: < 0 °C, ISO 3016
Boiling point/boiling range	Not specified
Flammability	extremely flammable aerosol
Lower and upper explosion limit	16 vol % (liquefied gas) 1.5 vol % (liquefied gas)
Flash point	MDI: > 200 °C, DIN 53171
Auto-ignition temperature	226 °C at 1 013 hPa (dimethylether)
Decomposition temperature	Not specified
pН	Not applicable

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Kinematic viscosity	For the mixture not known MDI: >= 200 mPa.s at 20 °C, DIN 53019
Solubility In water	insoluble, reacts with water
In organic solvents	soluble in polar organic solvents before curing
Partition coefficient: n-octanol/water	Not specified
Vapour pressure	< 0,7 MPa (at20 °C) - liquefied gas; < 0,0001 hPa - MDI
Density and/or relative density	1.1 g/cm3 - without the propulsion gas
	1.0 g/cm3 - included propulsion gas
Relative vapour density	unknown
Particle characteristics (solids)	Not applicable
Evaporation rate	propellant is released, the emerging PU-foam does not evaporate
Explosive properties	Product is not explosive but it is possible to form explosive mixtures
	with air.
Oxidising properties	unknown

#### 9.2 Other information

ignition temperature	propellant : > 350°C MDI: > 500 °C, DIN 51794	
Evaporation rate	propellant is released, the emerging PU-foam does not evaporate	
Organic solvents content (propulsion gas)	0.3 kg/kg of product	

The vapor density of the propellant is twice the density of air - the vapors stick to the ground.

# SECTION 10 STABILITY AND REACTIVITY

# 10.1 Reactivity

The product under standard conditions of use is stable and does not degrade.

# 10.2 Chemical stability

The product under standard conditions of use is stable and does not degrade.

# 10.3 Possibility of hazardous reactions

Reacts with substances containing active hydrogen, including water - and / or air humidity, carbon dioxide is produced and increases the pressure in closed containers. Also strong acids and strong oxidizing agents, e.g. hydrogen peroxide, nitric acid ...

# 10.4 Conditions to avoid

Temperatures above the flash point, open flames, static electricity, under standard conditions of use hazardous reactions are not known.

# 10.5 Incompatible materials

Strong acids, strong oxidizing agents, water. Eg.: Hydrogen peroxide, nitric acid ...

### 10.6 Hazardous decomposition products

Under standard usage does not occur.

Incomplete combustion creates smoke and toxic gases (eg. CO, NO, HCN), various hydrocarbons, aldehydes and soot. Inhalation is hazardous.

#### 10.7 Further information

# Potentially dangerous exothermic reaction

in contact with water, the temperature and pressure increases (inside the can)

#### Changes in physical properties effecting stability and safety of the mixture

If Increased pressure and temperature (in a can =inside of the packaging) there is a risk of an aerosol can bursting.

#### Hazardous degradation products when in contact with water

When sprayed, reacts with water and curing into PU foam.

# SECTION 11 TOXICOLOGICAL INFORMATION

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

#### **11.1.1 Mixture**

For mixture (content of cartridge) are not relevant toxicological data available. The mixture was evaluated by calculation

methods

Acute toxicity: Harmful if inhaled.

Skin corrosion/ irritation: Causes skin irritation.

Serious eye damage/irritation: Causes serious eye irritation.

Skin sensitisation/ Respiratory sensitisation: May cause allergy or asthma symptoms or breathing difficulties

if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity: Data not available

# This Safety Data Sheet serves as the mask for compilation of the SDS by the PU foam X75

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Carcinogenicity: Suspected of causing cancer.

Reproductive toxicity

May cause harm to breast-fed children
STOT-single exposure:

May cause respiratory irritation.

STOT-repeated exposure: May cause damage to organs through prolonged or repeated

exposure.

Aspiration hazard: does not meet the classification criteria

# 11.1.2 Mixture components

No information

#### 11.2 Information on other hazards

To our knowledge, it does not contain substances identified as endocrine disruptors

#### 11.3 Experience from human exposure

4,4'-methylendiphenyl diisocyanate:

Special features / effects: There is a risk of concentration independent irritation effect on eyes, nose, throat and respiratory track if over exposed. There can be late manifestations of problems and hypersensitivity development (difficulty in breathing, coughing, asthma). Hypersensitive individuals may experience reactions at very low concentrations of isocyanate, also still below the values NPK-P. If prolonged contact with the skin, there are possible effects of dryness and irritation.

# 11.4 Further information:

Contradiction between the data for components of the product and the actual effect on humans. The mixture is evaluated by conventional computational methods.

## \*SECTION 12 ECOLOGICAL INFORMATION

#### 12.1 Toxicity

For mixture (content of cartridge) are not relevant toxicological data available.

## 12.1.2 Toxicity of the mixture components to aquatic organisms

Diphenylmethanediisocyanate

Acute toxicity to fish:

LC50> 1,000 mg / 1 Danio rerio; static test; exposure: 96 h (OECD 203)

Acute toxicity to daphnia:

EC50> 1,000 mg / 1 Daphnia magna; static test; exposure: 24 hours (OECD 202)

Chronic toxicity to daphnia:

NOEC (reproduction)> 10 mg / 1 Daphnia magna; exposure: 21 days, (OECD 202)

Acute toxicity to algae:

ErC50> 1,640 mg/l scenedesmus subspicatus; Growth inhibition, exposure: 72 h., (OECD 201)

Acute toxicity to bacteria: EC50> 100 mg / l activated sludge;

Respiratory inhibition; exposure: 3 h., (OECD 209)

CAS 85535-85-9 alkanes, C14-17, chloro

Concentrations in the atmosphere are likely to be very small due to low volatility. Estimated atmospheric half life is 1 - 2 days.Biodegredation in soil: Studies conducted on C14.5 & C15.4 (average C chain length) with 43.5% & 50% chlorination showed 57% and 51% degradation of the test substance after 36 hours. Biodegradation in water and sediments: Simulation tests conducted on two C16 chlorinated paraffins (containing 35% Cl2 & 58% Cl2) gave a half-life (DT50) of 12 days and 58 days in freshwater sediment respectively

# 12.2 Persistence and degradability

# ${\bf Biodegradability:}$

Diphenylmethanediisocyanate

Type of test: aerobic

The inoculum: activated sludge

Biodegradation: 0%, 28 d, ie. is not potentially degradable

Method: OECD 302 C for testing

Pursuant the test results of biodegradability this product is not readily biodegradable.

#### CAS 85535-85-9 alkanes, C14-17, chloro

Concentrations in the atmosphere are likely to be very small due to low volatility. Estimated atmospheric half life is 1 - 2 days. Biodegredation in soil: Studies conducted on C14.5 & C15.4 (average C chain length) with 43.5% & 50% chlorination showed 57% and 51% degradation of the test substance after 36 hours.

Biodegradation in water and sediments: Simulation tests conducted on two C16 chlorinated paraffins (containing 35% Cl2 & 58% Cl2) gave a half-life (DT50) of 12 days and 58 days in freshwater sediment respectively

## 12.3 Bioaccumulative potential

Diphenylmethanediisocyanate

Bioconcentration factor (BCF): < 14

Type: Cyprinus carpio (carp) duration of exposure: 42 d Concentration: 0,2 mg/l

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### X60 - PU FOAM

Method: OECD 305 C for testing

Significantly does not accumulate in organisms.

Substance hydrolyzes in water rapidly.

Study of the hydrolysis products.

CAS 85535-85-9 alkanes, C14-17, chloro

The product has potential for limited bioaccumulation. (BCF <2000 L/kg, BMF <1)

### 12.4 Mobility in soil

Is very limited due to chemical reaction with water to form insoluble product - PU foam

distribution into the environment
 surface tension
 absorption or desorption
 not specified
 not specified
 not specified

# 12.5 Results of PBT and vPvB assessments

Medium chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% of linear chloroalkanes with a carbon chain length ranging from C14 to C17]: the substance has been included in the Candidate List for possible inclusion in Annex XIV of REACH. (published in accordance with Article 59 (10) of the REACH Regulation)

Reason for inclusion: PBT (Article 57d); vPvB (Article 57e)

### 12.6 Endocrine disrupting properties

To our knowledge, it does not contain substances identified as endocrine disruptors

### 12.7 Other adverse effects

Avoid (Do not allow) propellants entering drains. Isocyanate reacts with water at the interface with formation of CO2 and forms a solid insoluble substance with high melting point (polyurea). This reaction is strongly supported by surface-active agents /surfactants (e.g. liquid soaps) or water-soluble solvents. As per so far presented experience polyuria is still inert and non-degradable.

#### SECTION 13 DISPOSAL CONSIDIRATION

#### 13.1 Waste treatment methods

All Waste must be handled in accordance with national regulations.

Do not mix with household waste. This is a hazardous waste.

# 13.1.1 The potential risk in waste disposal.

no significant risk at disposal, but empty containers/cans may contain unreacted components.

# 13.1.2 Disposal methods of the mixture

Uncured material to be treated as hazardous waste.

Aerosol cans with the contents remains must be disposed of as hazardous waste, eg. in a hazardous waste incinerator

# Recommended cleaning agent:

PU foam cleaner for uncured foam. Cured foam can only be removed mechanically.

# 13.1.3 Recommended waste classification

Mixture

Uncured material: eg. 080409\* Cured material: eg.: 080410

Packaging 15 01 11\* 16 05 04\* 15 01 04

17 04 05

SECTION 14 TRANSPORT INFORMATION				
14.1	UN number or ID number	UN 1950		
14.2	UN proper shipping name	AEROSOLS		
14.3	Transport hazard class (es)	2		
14.4	Packing group	-		
14.5	Environmental hazards	yes		
14.6	Special precautions for users	NOT APPLICABLE		
14.7	Maritime transport in bulk according to IMO instruments	NOT APPLICABLE		
14.8	Land transport ADR/RID			
	Class/classification code	2 (5F)		
	Packing group:	-		
	Safety label	2.1+"fish and tree"		
	Description:	UN 1950 Aerosols, flamable		

Subject to Regulation (EC) No1907/2006 of the European Parliament and of the Council EC 1907/2006

as amended by Council Directive (EU) 2020/878

Version:2022 ENRevision date:21.7.2022Creation date in ENG:30.3.2017Replacement of version:1.12.2021

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# 14.9 Maritime transport IMDG:

Class/classification code	2.1
Packing group:	-
Safety Label	2.1+"fish and tree"
Description:	UN 1950 Aerosols, flamable
Ems No.:	F-D,S-U
Marine pollutant	yes

### 14.10 Air Transport ICAO/IATA-DGR

Class/classification code	2.1
Packing group:	-
Description:	UN 1950 Aerosols, flamable

#### \*SECTION 15 REGULATORY INFORMATION

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

Regulation (EC) No1907/2006 of the European Parliament and of the Council of 18. December 2006 on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 On classification, labelling and packaging of substances and mixtures

The European Agreement Concerning the International carriage of dangerous goods by road (Agreement ADR)

NOTE: The stated regulatory information only indicate basic regulations described in this safety data sheet. Please note the possible existence of additional legislation complementing these regulations. Refer to all applicable national, international and local regulations and directives.

Information according to Commission REGULATION (EC) No 552/2009 of 22 June 2009

amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XVII, that must appear on the label of the product. Persons already sensitized to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

# 15.1.2 Information according to Commission Regulation (EC) No. 2020/1149, which must appear on the label of a product containing diisocyanates in a concentration ≥ 0.1%

As from 24 August 2023 adequate training is required before industrial or professional use.

# 15.1.3 Other obligations when selling to the general public

A tactile warning

Gloves (in accordance with COMMISSION REGULATION (EC) No 552/2009)

## 15.2 Chemical safety assessment

Not carried out

#### \*SECTION 16 OTHER INFORMATION

16.1	Full text of H phrases	
	H220	Extremely flammable gas.
	H222	Extremely flammable aerosol.
	H229	Pressurised container: May burst if heated.
	H280	Contains gas under pressure; may explode if heated.
	H302	Harmful if swallowed.
	H315	Causes skin irritation
	H317	May cause an allergic skin reaction.
	H319	Causes serious eye irritation
	H332	Harmful if inhaled.
	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	H335	May cause respiratory irritation.
	H351	Suspected of causing cancer
	H373	May cause damage to organs
	H362	May cause harm to breast-fed children.
	H400	Very toxic to aquatic life.
	H410	Very toxic to aquatic life with long lasting effects.
	H413	May cause long lasting harmful effects to aquatic life.

Subject to Regulation (EC) No1907/2006 of the European Parliament and of the Council EC 1907/2006

as amended by Council Directive (EU) 2020/878

Version:2022 ENRevision date:21.7.2022Creation date in ENG:30.3.2017Replacement of version:1.12.2021

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#### 16.2 Training instructions

Workers who come into contact with dangerous substances must be acquainted by the employer to the extent necessary with the effects of these substances, with the ways of handling them, with protective measures, with first aid principles, with necessary remediation procedures and with procedures for liquidation of faults and accidents. The legal entity or natural person handling this chemical mixture must be trained in the safety rules and data given in the safety data sheet.

Information according to Commission Regulation (EC) No. 2020/1149, which must appear on the label of a product containing diisocyanates in a concentration  $\geq 0.1\%$ 

As from 24 August 2023 adequate training is required before industrial or professional use.

Commission Regulation (EC) No. 2020/1149 requires workers handling diisocyanates to receive training depending on their use. Application sector training link Application of polyurethane products in the construction sector - Adhesives, Sealants and Foams directly applied out of small packaging at ambient temperature:

https://isopa-aisbl.idloom.events/048

More information: <a href="https://www.feica.eu/our-projects/safe-use-diisocyanates">https://www.feica.eu/our-projects/safe-use-diisocyanates</a>

#### 16.3 Information on sources of data used in the compilation of the Safety Data Sheet

Data of the manufacturer and vendor as stated in the Safety Data Sheets of the individual components of the mixture This Safety Data Sheet should be used in conjunction with the Material Data Sheet. The SDS does not replace the MDS. Information herein presented is based on our knowledge of the product at the time of issue and are presented in good faith. The user is alerted to the potential danger as resulting from the use of the product for purposes other than for which it is intended. This does not exempt the user from the understanding and implementation of all laws and regulations regulating their business. The implementation of all regulations required for handling the product is he sole responsibility of the user. These regulatory directives are intended to help the user in meeting their duties related to the handling of dangerous products. This information is not exhaustive. This does not exempt the user from their duty to make sure there are no other laws and regulations than those referred to herein, and relating to the use and storage of the product, this remaining solely the user's responsibility.

# 16.4 National Poison Centres

https://www.eapcct.org/index.php?page=links

https://poisoncentres.echa.europa.eu/cs/appointed-bodies

https://echa.europa.eu/cs/support/helpdesks

# 16.5 Changes made to the previous version of the safety data sheet

Significant changes made to sections marked with \*

#### DISCLAIMER

The information contained in this sheet comes from reliable sources. It has been drawn up based on our knowledge at the time of the most recent update, as indicated. This information is intended as an aid to the user and should not be considered as a guarantee.

Conditions or methods of handling, storage, use or disposal of the product are outside our control, and we may not be held responsible for any loss, damage or expenses incurred as a result of, or in connection with, the latter.

All substances or mixtures can present unknown dangers and must be used with caution. We cannot guarantee that all dangers have been set out in an exhaustive manner.

This sheet has been drawn up for, and must be used for, this product only. If the product is used as a component in another product, the information given with it may not be applicable.

This sheet does not under any circumstances exempt the user from complying with all laws, regulations and administrative requirements related to the product, health and safety, and the protection of human health and the environment.