

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

- 1.1 Product identifier:** R-RPP-B1
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Foam
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:** RAWLPLUG S.A.
ul. Kwidzyńska 6
51-416 Wrocław
Tel.: +48 (0) 71 32 60 100
- 1.4 Emergency telephone number:** +48 661 970 365; 112

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

Directive 67/548/EC and Directive 1999/45/EC:

This product was classified in accordance with Directive 67/548/EC and Directive 1999/45/EC, adapting the requirements to Regulation (EC) n°1907/2006 (REACH regulation).

Carc. Cat 3: R40 - Limited evidence of a carcinogenic effect

F+: R12 - Extremely flammable

Xi: R36/37/38 - Irritating to eyes, respiratory system and skin

Xn: R20 - Harmful by inhalation, R42/43 - May cause sensitisation by inhalation and skin contact, R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation

CLP Regulation (EC) n° 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.

Acute Tox. 4: Acute toxicity, Category 4

Aerosol 1: Flammable aerosols, Category 1

Aerosol 1: Pressurised container: May burst if heated.

Carc. 2: Carcinogenicity, Category 2

Eye Irrit. 2: Eye irritation, Category 2

Resp. Sens. 1: Sensitisation, respiratory, Category 1

Skin Irrit. 2: Skin irritation, Category 2

Skin Sens. 1: Sensitisation, skin, Category 1

STOT RE 2: Specific target organ toxicity, repeated exposure, Category 2

STOT SE 3: Respiratory tract toxicity, single exposure, Category 3

2.2 Label elements:

CLP Regulation (EC) n° 1272/2008:

Danger



Hazard statements:

Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled

Aerosol 1: H222 - Extremely flammable aerosol

Aerosol 1: H229 - Pressurised container: May burst if heated

Carc. 2: H351 - Suspected of causing cancer

Eye Irrit. 2: H319 - Causes serious eye irritation

Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Skin Irrit. 2: H315 - Causes skin irritation

Skin Sens. 1: H317 - May cause an allergic skin reaction

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure

STOT SE 3: H335 - May cause respiratory irritation

Precautionary statements:

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SECTION 2: HAZARDS IDENTIFICATION (continue)

P101: If medical advice is needed, have product container or label at hand
 P102: Keep out of reach of children
 P103: Read label before use
 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
 P302+P352: IF ON SKIN: Wash with plenty of water
 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
 P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F
 P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment

Supplementary information:

EUH204: Contains isocyanates. May produce an allergic reaction

Additional Labelling (Annex XVII, REACH):

Persons already sensitised 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.

2.3 Other hazards:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical description: Mixture composed of polyurethane in solvents

Components:

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 9016-87-9 EC: Non-applicable Index: 615-005-00-9 REAC H: Non-applicable	4,4'-methylenediphenyl diisocyanate, isomers and homologues ATP ATP01 Directive 67/548/EC Carc. Cat 3: R40; Xi: R36/37/38; Xn: R20, R42/43, R48/20 Regulation 1272/2008 Acute Tox. 4: H332; Carc. 2: H351; Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373; STOT SE 3: H335 - Danger		25 - <50 %
CAS: 1244733-77-4 EC: 911-815-4 Index: Non-applicable REAC H: 01-2119486772-26-	Phosphoric trichloride, reaction products with propylene oxide Self-classified Directive 67/548/EC Xn: R22 Regulation 1272/2008 Acute Tox. 4: H302 - Warning		10 - <25 %
CAS: 86675-46-9 EC: Non-applicable Index: Non-applicable REAC H: Non-applicable	Halogenated polyetherpolyol Self-classified Directive 67/548/EC Xn: R22 Regulation 1272/2008 Acute Tox. 4: H302 - Warning		10 - <25 %
CAS: 75-37-6 EC: 200-866-1 Index: Non-applicable REAC H: Non-applicable	1,1-difluoroethane Self-classified Directive 67/548/EC F+: R12 Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger		5 - <10 %
CAS: 75-28-5 EC: 200-857-2 Index: 601-004-00-0 REAC H: 01-2119485395-27-	Isobutane ATP CLP00 Directive 67/548/EC F+: R12 Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger		2,5 - <5 %
CAS: 115-10-6 EC: 204-065-8 Index: 603-019-00-8 REAC H: 01-2119472128-37-	Dimethyl ether ATP CLP00 Directive 67/548/EC F+: R12 Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger		2,5 - <5 %
CAS: 78-40-0 EC: 201-114-5 Index: 015-013-00-7 REAC H: 01-2119492852-28-	Triethyl phosphate ATP CLP00 Directive 67/548/EC Xn: R22 Regulation 1272/2008 Acute Tox. 4: H302 - Warning		1 - <2,5 %
CAS: 74-98-6 EC: 200-827-9 Index: 601-003-00-5 REAC H: 01-2119486944-21-	Propane ATP CLP00 Directive 67/548/EC F+: R12 Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger		1 - <2,5 %

To obtain more information on the risk of the substances consult sections 8, 11, 12 and 16.

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SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the MSDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with luke warm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the MSDS of the product.

By consumption:

Do not induce vomiting, but if it does happen keep the head up to avoid inhalation. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂). IT IS RECOMMENDED NOT to use tap water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

Contains substances that may result in explosion caused by heat. In case of fire follow the instructions on the Internal Emergency Plan.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertizing agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:

This product is not classified as dangerous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and material for containment and cleaning up:

It is recommended:

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continue)

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 94/9/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137). Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 30 °C

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Field of application of the product is described in Technical data sheet (TDS).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the work environment

Identification	Environmental limits		
	IOELV (8h)	1000 ppm	1920 mg/m ³
Dimethyl ether CAS: 115-10-6 EC: 204-065-8	IOELV (STEL)		
	Year	2014	

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Phosphoric trichloride, reaction products with propylene oxide CAS: 1244733-77-4 EC: 911-815-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	8 mg/kg	Non-applicable	2,08 mg/kg	Non-applicable
	Inhalation	22,4 mg/m ³	Non-applicable	5,82 mg/m ³	Non-applicable
Dimethyl ether CAS: 115-10-6 EC: 204-065-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1894 mg/m ³	Non-applicable

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Triethyl phosphate CAS: 78-40-0 EC: 201-114-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	26,6 mg/kg	Non-applicable	3,33 mg/kg	Non-applicable
	Inhalation	93,6 mg/m ³	93,6 mg/m ³	11,7 mg/m ³	11,7 mg/m ³

DNEL (Population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Phosphoric trichloride, reaction products with propylene oxide CAS: 1244733-77-4 EC: 911-815-4	Oral	Non-applicable	Non-applicable	0,52 mg/kg	Non-applicable
	Dermal	4 mg/kg	Non-applicable	1,04 mg/kg	Non-applicable
	Inhalation	11,2 mg/m ³	Non-applicable	1,46 mg/m ³	Non-applicable
Dimethyl ether CAS: 115-10-6 EC: 204-065-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	471 mg/m ³	Non-applicable
Triethyl phosphate CAS: 78-40-0 EC: 201-114-5	Oral	13,3 mg/kg	Non-applicable	1,66 mg/kg	Non-applicable
	Dermal	13,3 mg/kg	Non-applicable	1,66 mg/kg	Non-applicable
	Inhalation	23,12 mg/m ³	23,12 mg/m ³	2,89 mg/m ³	23,12 mg/m ³

PNEC:

Identification					
Phosphoric trichloride, reaction products with propylene oxide CAS: 1244733-77-4 EC: 911-815-4	STP	7,84 mg/L	Fresh water	0,64 mg/L	
	Soil	1,7 mg/kg	Marine water	0,064 mg/L	
	Intermittent	0,51 mg/L	Sediment (Fresh water)	13,4 mg/kg	
	Oral	11,6 g/kg	Sediment (Marine water)	1,34 mg/kg	
Dimethyl ether CAS: 115-10-6 EC: 204-065-8	STP	160 mg/L	Fresh water	0,155 mg/L	
	Soil	0,045 mg/kg	Marine water	0,016 mg/L	
	Intermittent	1,549 mg/L	Sediment (Fresh water)	0,681 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0,069 mg/kg	
Triethyl phosphate CAS: 78-40-0 EC: 201-114-5	STP	298,5 mg/L	Fresh water	0,632 mg/L	
	Soil	Non-applicable	Marine water	Non-applicable	
	Intermittent	Non-applicable	Sediment (Fresh water)	Non-applicable	
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable	



8.2 Exposure controls:

A.- General security and hygiene measures in the work place

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the professional exposure limits. In case of using individual protection equipment they should have the "CE marking" in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.



B.- Respiratory protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases, vapours and particles		EN 149:2001+A1:2009 EN 405:2001+A1:2009	Replace when an increase in resistance to breathing is observed and/or a smell or taste of the contaminant is detected.



C.- Specific protection for the hands

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves		EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.



D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face mask		EN 166:2001 EN 167:2001 EN 168:2001 EN 172:1994/A1:2000 EN 172:1994/A2:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Bodily protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2001 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties		EN 13287:2008 EN ISO 20345:2011 EN 13832-1:2006 EN ISO 20344:2011	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatil organic compounds:

With regard to Directive 1999/13/EC, this product has the following characteristics:

V.O.C. (Supply):	11,29 % weight
V.O.C. density at 20 °C:	Non-applicable
Average carbon number:	6
Average molecular weight:	182,2 g/mol

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Aerosol
Appearance:	Not available
Color:	Not available
Odor:	Not available

Volatility:

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continue)

Boiling point at atmospheric pressure:	211 °C (Propellant)
Vapour pressure at 20 °C:	25 Pa
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *
Product description:	
Density at 20 °C:	Non-applicable *
Relative density at 20 °C:	Non-applicable *
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility property:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Recipient pressure:	Non-applicable *

Flammability:

Flash Point:	Non Flammable (>60 °C)
Autoignition temperature:	240 °C (Propellant)
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

9.2 Other information:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected if the following technical instructions storage of chemicals. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Not applicable	Not applicable	Avoid direct impact	Avoid direct impact	Not applicable

10.6 Hazardous decomposition products:

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SECTION 10: STABILITY AND REACTIVITY (continue)

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

No experimental information is available on the product itself in relation to the toxicological properties. When performing the danger classification on corrosive or irritant effects the recommendations included in section 3.2.5 of Annex VI of Directive 67/548/EC, in paragraphs b) and c) of section 3 of article 6 of Directive 1999/45/EC and in section 3.2.3.3.5. of Annex I of CLP Regulation were taken into account.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A.- Ingestion:

The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation:

Exposure in high concentrations can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion and in serious cases, loss of concentration.

C- Contact with the skin and the eyes:

Produces skin inflammation.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.

E- Sensitizing effects:

Prolonged exposure can result in specific respiratory hypersensitivity.

F- Specific target organ toxicity (STOT)-time exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

Exposure in high concentrations can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion and in serious cases, loss of concentration.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Halogenated polyetherpolyol CAS: 86675-46-9 EC: Non-applicable	500 mg/kg (ATEi)	Non-applicable	
Phosphoric trichloride, reaction products with propylene oxide CAS: 1244733-77-4 EC: 911-815-4	632 mg/kg	Non-applicable	Rat
Triethyl phosphate CAS: 78-40-0 EC: 201-114-5	500 mg/kg (ATEi)	Non-applicable	
4,4'-methylenediphenyl diisocyanate, isomers and homologues CAS: 9016-87-9 EC: Non-applicable	Non-applicable	11 mg/L (4 h) (ATEi)	
Dimethyl ether	Non-applicable		

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SECTION 11: TOXICOLOGICAL INFORMATION (continue)

Identification	Acute toxicity		Genus
CAS: 115-10-6	LD50 dermal	Non-applicable	
EC: 204-065-8	LC50 inhalation	308,5 mg/L (4 h)	Rat

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the ecotoxicological properties of the product itself is not available
Contains phosphates. Excessive discharge may cause eutrophication.

12.1 Toxicity:

Not available

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
Isobutane	BCF	27
CAS: 75-28-5	Pow Log	2,76
EC: 200-857-2	Potential	Low
Propane	BCF	13
CAS: 74-98-6	Pow Log	2,86
EC: 200-827-9	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Isobutane	Koc	35	Henry	1,206E+5 Pa·m ³ /mol
CAS: 75-28-5	Conclusion	Very High	Dry soil	Yes
EC: 200-857-2	Surface tension	9840 N/m (25 °C)	Moist soil	Yes
Dimethyl ether	Koc	Non-applicable	Henry	Non-applicable
CAS: 115-10-6	Conclusion	Non-applicable	Dry soil	Non-applicable
EC: 204-065-8	Surface tension	11360 N/m (25 °C)	Moist soil	Non-applicable
Triethyl phosphate	Koc	Non-applicable	Henry	Non-applicable
CAS: 78-40-0	Conclusion	Non-applicable	Dry soil	Non-applicable
EC: 201-114-5	Surface tension	29610 N/m (25 °C)	Moist soil	Non-applicable
Propane	Koc	460	Henry	7,164E+4 Pa·m ³ /mol
CAS: 74-98-6	Conclusion	Moderate	Dry soil	Yes
EC: 200-827-9	Surface tension	7020 N/m (25 °C)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Directive 2008/98/EC)
16 05 04*	Gases in pressure containers (including halons) containing dangerous substances	Dangerous

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2000/532/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

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SECTION 13: DISPOSAL CONSIDERATIONS (continue)

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2000/532/EC: Commission Decision of 3 May 2000

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2013 and RID 2013:



- 14.1 **UN number:** UN1950
- 14.2 **UN proper shipping name:** AEROSOLS, flammable
- 14.3 **Transport hazard class(es):** 2
Labels: 2.1
- 14.4 **Packing group:** N/A
- 14.5 **Dangerous for the environment:** No

- 14.6 **Special precautions for user**
Special regulations: 190, 327, 625
Tunnel restriction code: D
Physico-Chemical properties: see section 9
Limited quantities: 1 L
- 14.7 **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 36-12:



- 14.1 **UN number:** UN1950
- 14.2 **UN proper shipping name:** AEROSOLS, flammable
- 14.3 **Transport hazard class(es):** 2
Labels: 2.1
- 14.4 **Packing group:** N/A
- 14.5 **Dangerous for the environment:** No

- 14.6 **Special precautions for user**
Special regulations: Non-applicable
EmS Codes: F-D, S-U
Physico-Chemical properties: see section 9
Limited quantities: 1 L
- 14.7 **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2014:



- 14.1 **UN number:** UN1950
- 14.2 **UN proper shipping name:** AEROSOLS, flammable
- 14.3 **Transport hazard class(es):** 2
Labels: 2.1
- 14.4 **Packing group:** N/A
- 14.5 **Dangerous for the environment:** No

- 14.6 **Special precautions for user**
Physico-Chemical properties: see section 9
- 14.7 **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Non-applicable

SECTION 15: REGULATORY INFORMATION

- CONTINUED ON NEXT PAGE -

SECTION 15: REGULATORY INFORMATION (continue)

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

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable

Active substances for which a decision of non-inclusion onto Annex I (Regulation (EU) No 528/2012): Non-applicable

Regulation (EC) 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII, REACH):

Contains more than 0,1 % of 4,4'-methylenediphenyl diisocyanate, isomers and homologues by weight. This product may not be distributed in its present form for first-time sale to the general public after 27th December 2010 unless the packaging contains protective gloves meeting the provisions of European Council Directive 89/686/CEE.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009, 2009 No. 716

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (CDG 2009), SI 2009 No 1348

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2011, 2011 No. 1885

Control of Substances Hazardous to Health Regulations 2002 (as amended)

EH40/2005 Workplace exposure limits

The Waste Regulations 2011, 2011 No. 988

Council Directive 75/324/EEC of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers

Commission Directive 94/1/EC of 6 January 1994 adapting some technicalities of Council Directive 75/324/EEC on the approximation of the laws of the relating Member States to aerosol dispensers

Commission Directive 2008/47/EC of 8 April 2008 amending, for the purposes of adapting to technical progress, Council Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers

Commission Directive 2013/10/EU of 19 March 2013 amending Council Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers in order to adapt its labelling provisions to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EC) N° 453/2010)

Modifications related to the previous security card which concerns the ways of managing risks. :

COMPOSITION/INFORMATION ON INGREDIENTS:

- Added Content
 - Halogenated polyetherpolyol (86675-46-9)
 - 1,1-difluoroethane (75-37-6)
 - Isobutane (75-28-5)
 - Propane (74-98-6)

Directive 67/548/EC and Directive 1999/45/EC:

- R Phrases
- S Phrases

CLP Regulation (EC) n° 1272/2008:

- Hazard statements
- Precautionary statements
- Supplementary information

Text of R-phrases considered in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

Directive 67/548/EC and Directive 1999/45/EC:

- CONTINUED ON NEXT PAGE -

SECTION 16: OTHER INFORMATION (continue)

R12: Extremely flammable
R20: Harmful by inhalation
R22: Harmful if swallowed
R36/37/38: Irritating to eyes, respiratory system and skin
R40: Limited evidence of a carcinogenic effect
R42/43: May cause sensitisation by inhalation and skin contact
R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation

CLP Regulation (EC) n° 1272/2008:

Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H332 - Harmful if inhaled
Carc. 2: H351 - Suspected of causing cancer
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Gas 1: H220 - Extremely flammable gas
Press. Gas: H280 - Contains gas under pressure, may explode if heated
Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://esis.jrc.ec.europa.eu>
<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

- ADR: European agreement concerning the international carriage of dangerous goods by road
-IMDG: International maritime dangerous goods code
-IATA: International Air Transport Association
-ICAO: International Civil Aviation Organisation
-COD: Chemical Oxygen Demand
-BOD5: 5-day biochemical oxygen demand
-BCF: Bioconcentration factor
-LD50: Lethal Dose 50
-CL50: Lethal Concentration 50
-EC50: Effective concentration 50
-Log-POW: Octanol–water partition coefficient
-Koc: Partition coefficient of organic carbon

The information contained in this security data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this security data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -