


**DENNARD PU EXPANSIBLE STRAW FOAM 765ML**

**SECTION I: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

1.1	<b>Product Identifier</b>	DENNARD PU EXPANSIBLE FOAM STRAW FOAM 765ML
1.2	<b>Relevant identified uses of the substance or mixture and uses advised against</b>	Relevant Uses: Foam Uses advised against: All uses not specified in this section or in section 7.3
1.3	<b>Details of the supplier of the safety data sheet</b>	DENNARD INDUSTRIAL PRODUCTS B.V. Unit No. 2.7A , Europalaan 16, 2408BG , Alphen Aan Den Rijn. Netherlands. Tel: 0031 (0) 172748960 Fax: 0031 (0) 172748969 Email: info@dennard.nl www.dennard.nl

**SECTION II: HAZARDS IDENTIFICATION**

2.1	<b>Classification of the substance or mixture CLP Regulation (EC) n° 1272/2008</b>	Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008. Acute Tox. 4: Acute toxicity, Category 4, H302+H332 Aerosol 1: Flammable aerosols, Category 1, H222 Aerosol 1: Pressurised container: May burst if heated., H229 Aquatic Chronic 4: Hazardous to the aquatic environment, long-term hazard, Category 4, H413 Carc. 2: Carcinogenicity, Category 2, H351 Eye Irrit. 2: Eye irritation, Category 2, H319 Lact.: Reproductive toxicity, effects on or via lactation, H362 Resp. Sens. 1: Sensitisation, respiratory, Category 1, H334 Skin Irrit. 2: Skin irritation, Category 2, H315 Skin Sens. 1: Sensitisation, skin, Category 1, H317 STOT RE 2: Specific target organ toxicity, repeated exposure, Category 2, H373 STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335
2.2	<b>Label elements CLP Regulation (EC) n° 1272/2008</b>	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 Aquatic Chronic 4: H413 - May cause long lasting harmful effects to aquatic life Carc. 2: H351 - Suspected of causing cancer Eye Irrit. 2: H319 - Causes serious eye irritation Lact.: H362 - May cause harm to breast-fed children 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  <b>Precautionary statements:</b> P101: If medical advice is needed, have product container or label at hand P102: Keep out of reach of children P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

		<p>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</p> <p><b>Supplementary information:</b> EUH204: Contains isocyanates. May produce an allergic reaction</p> <p><b>Additional Labelling (Annex XVII, REACH):</b> 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.</p>
2.3	<b>Other hazards</b>	Non-applicable

**SECTION III: COMPOSITION / INFORMATION ON INGREDIENTS**

3.1	<b>Substance</b>	Non-Applicable																											
3.2	<b>Mixture</b>	<p><b>Chemical Description:</b> Mixture composed of polyurethane in solvents</p> <p><b>Components:</b> In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:</p> <table border="1"> <thead> <tr> <th>Identification</th> <th>Chemical Name/Classification</th> <th>Concentration</th> </tr> </thead> <tbody> <tr> <td>CAS: 9016-87-9 EC: Non-applicable Index: 615-005-00-9 REACH Non-applicable</td> <td><b>4,4'-methylenediphenyl diisocyanate, isomers and homologues</b> 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</td> <td>ATP ATP01 30 - &lt;50 %</td> </tr> <tr> <td>CAS: 75-28-5 EC: 200-857-2 Index: 601-004-00-0 REACH 01-2119485395-27-XXXX</td> <td><b>Isobutane</b> Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger</td> <td>ATP CLP00 10 - &lt;20 %</td> </tr> <tr> <td>CAS: 85535-85-9 EC: 287-477-0 Index: 602-095-00-X REACH 01-2119519269-33-XXXX</td> <td><b>Alkanes, C14-17, chloro</b> Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Lact.: H362 - Warning</td> <td>ATP ATP01 10 - &lt;20 %</td> </tr> <tr> <td>CAS: 115-10-6 EC: 204-065-8 Index: 603-019-00-8 REACH 01-2119472128-37-XXXX</td> <td><b>Dimethyl ether</b> Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger</td> <td>ATP CLP00 2,5 - &lt;5 %</td> </tr> <tr> <td>CAS: 13674-84-5 EC: 237-158-7 Index: Non-applicable REACH 01-2119480419-30-XXXX</td> <td><b>Tris(1-chloro-2-propyl) Phosphate</b> Regulation 1272/2008 Acute Tox. 4: H302 - Warning</td> <td>Self Classified 2,5 - &lt;5 %</td> </tr> <tr> <td>CAS: 74-98-6 EC: 200-827-9 Index: 601-003-00-5 REACH 01-2119486944-21-XXXX</td> <td><b>Propane</b> Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger</td> <td>ATP CLP00 1 - &lt;2,5 %</td> </tr> <tr> <td>CAS: 106-97-8 EC: 203-448-7 Index: 601-004-00-0 REACH 01-2119474691-32-XXXX</td> <td><b>Butane</b> Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger</td> <td>ATP CLP00 1 - &lt;2,5 %</td> </tr> <tr> <td>CAS: 6425-39-4 EC: 229-194-7 Index: Non-applicable REACH 01-2119969278-20-XXXX</td> <td><b>2,2'-dimorpholinyl diethyl ether</b> Regulation 1272/2008 Eye Irrit. 2: H319 - Warning</td> <td>Self Classified 0,1 - &lt;1 %</td> </tr> </tbody> </table> <p>To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 and 16.</p>	Identification	Chemical Name/Classification	Concentration	CAS: 9016-87-9 EC: Non-applicable Index: 615-005-00-9 REACH Non-applicable	<b>4,4'-methylenediphenyl diisocyanate, isomers and homologues</b> 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	ATP ATP01 30 - <50 %	CAS: 75-28-5 EC: 200-857-2 Index: 601-004-00-0 REACH 01-2119485395-27-XXXX	<b>Isobutane</b> Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger	ATP CLP00 10 - <20 %	CAS: 85535-85-9 EC: 287-477-0 Index: 602-095-00-X REACH 01-2119519269-33-XXXX	<b>Alkanes, C14-17, chloro</b> Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Lact.: H362 - Warning	ATP ATP01 10 - <20 %	CAS: 115-10-6 EC: 204-065-8 Index: 603-019-00-8 REACH 01-2119472128-37-XXXX	<b>Dimethyl ether</b> Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger	ATP CLP00 2,5 - <5 %	CAS: 13674-84-5 EC: 237-158-7 Index: Non-applicable REACH 01-2119480419-30-XXXX	<b>Tris(1-chloro-2-propyl) Phosphate</b> Regulation 1272/2008 Acute Tox. 4: H302 - Warning	Self Classified 2,5 - <5 %	CAS: 74-98-6 EC: 200-827-9 Index: 601-003-00-5 REACH 01-2119486944-21-XXXX	<b>Propane</b> Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger	ATP CLP00 1 - <2,5 %	CAS: 106-97-8 EC: 203-448-7 Index: 601-004-00-0 REACH 01-2119474691-32-XXXX	<b>Butane</b> Regulation 1272/2008 Flam. Gas 1: H220; Press. Gas: H280 - Danger	ATP CLP00 1 - <2,5 %	CAS: 6425-39-4 EC: 229-194-7 Index: Non-applicable REACH 01-2119969278-20-XXXX	<b>2,2'-dimorpholinyl diethyl ether</b> Regulation 1272/2008 Eye Irrit. 2: H319 - Warning	Self Classified 0,1 - <1 %
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### SECTION IV: FIRST AID MEASURES

4.1	<b>Description of first aid measures</b>	<p>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 SDS of this product.</p> <p><b>By inhalation:</b> 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.</p> <p><b>By skin contact:</b> This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.</p> <p><b>By eye contact:</b> Rinse eyes thoroughly with water for at least 15 minutes. 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 SDS of the product.</p> <p><b>By ingestion/aspiration:</b> Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.</p>
4.2	<b>Most important symptoms and effects, both acute and delayed</b>	Acute and delayed effects are indicated in sections 2 and 11.
4.3	<b>Indication of any immediate medical attention and special treatment needed</b>	Non-applicable

### SECTION V: FIREFIGHTING MEASURES

5.1	<b>Extinguishing media</b>	If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO <sub>2</sub> ). IT IS RECOMMENDED NOT to use tap water as an extinguishing agent.
5.2	<b>Special hazards arising from the substance or mixture</b>	As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
5.3	<b>Advice for firefighters</b>	<p>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.</p> <p><b>Additional provisions:</b> 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.</p>

### SECTION VI: ACCIDENTAL RELEASE MEASURES

6.1	<b>Personal precautions, protective equipment and emergency procedures</b>	Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.
6.2	<b>Environmental precautions</b>	Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.
6.3	<b>Methods and material for containment and cleaning up</b>	It is recommended: 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	<b>Reference to other sections</b>	See sections 8 and 13.

### SECTION VII: HANDLING AND STORAGE

7.1	<b>Precautions for safe handling</b>	<p><b>A: Precautions for safe manipulation</b> 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.</p> <p><b>B: Technical recommendations for the prevention of fires and explosions</b> Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.</p> <p><b>C: Technical recommendations to prevent ergonomic and toxicological risks</b> Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.</p> <p><b>D: Technical recommendations to prevent environmental risks</b> Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.</p>
7.2	<b>Conditions for safe storage, including any incompatibilities</b>	<p><b>A: Technical measures for storage</b> Minimum Temp.: 5 °C Maximum Temp.: 30 °C</p> <p><b>B: General conditions for storage</b> Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5</p>
7.3	<b>Specific end use(s):</b>	Field of application of the product is described in Technical data sheet (TDS).

**SECTION VIII: EXPOSURE CONTROLS / PERSONAL PROTECTION**

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

IDENTIFICATION	ENVIRONMENTAL LIMITS		
	Dimethyl ether CAS: 115-10-6 EC: 204-065-8	IOELV (8h)	1000 ppm
	IOELV (STEL)		
	Year	2015	

**DNEL (Workers):**

IDENTIFICATION		SHORT EXPOSURE		LONG EXPOSURE	
		SYSTEMIC	LOCAL	SYSTEMIC	LOCAL
Alkanes, C14-17, chloro CAS: 85535-85-9 EC: 287-477-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	47.9 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	6.7 mg/m <sup>3</sup>	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 <sup>3</sup>	Non-applicable
2,2'-dimorpholinyl-diethyl ether CAS: 6425-39-4 EC: 229-194-7	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	7.28 mg/m <sup>3</sup>	Non-applicable

**DNEL (General Population):**

IDENTIFICATION		SHORT EXPOSURE		LONG EXPOSURE	
		SYSTEMIC	LOCAL	SYSTEMIC	LOCAL
Alkanes, C14-17, chloro CAS: 85535-85-9 EC: 287-477-0	Oral	Non-applicable	Non-applicable	0.58 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	28.75 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2 mg/m <sup>3</sup>	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 <sup>3</sup>	Non-applicable
2,2'-dimorpholinyl-diethyl ether CAS: 6425-39-4 EC: 229-194-7	Oral	Non-applicable	Non-applicable	0.5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1.8 mg/m <sup>3</sup>	Non-applicable



**PNEC:**

IDENTIFICATION				
Alkanes, C14-17, chloro CAS: 85535-85-9 EC: 287-477-0	STP	80 mg/L	Fresh Water	0.001 mg/L
	Soil	11.9 mg/kg	Marine Water	0.0002 mg/L
	Intermittent	Non-applicable	Sediment (Fresh water)	13 mg/kg
	Oral	10 g/kg	Sediment (Marine water)	2.6 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
Tris(1-chloro-2-propyl) Phosphate CAS: 13674-84-5 EC: 237-158-7	STP	Non-applicable	Fresh Water	0.42 mg/L
	Soil	1.33 mg/kg	Marine Water	0.42 mg/L
	Intermittent	Non-applicable	Sediment (Fresh water)	2.96 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	2.96 mg/kg
2,2'-dimorpholinyl-diethyl ether CAS: 6425-39-4 EC: 229-194-7	STP	100 mg/L	Fresh Water	0.1 mg/L
	Soil	1.58 mg/kg	Marine Water	0.01 mg/L
	Intermittent	1 mg/L	Sediment (Fresh water)	8.2 mg/kg
	Oral	10 g/kg	Sediment (Marine water)	0.82 mg/kg



8.2	<b>Exposure controls:</b>	<p><b>A: General security and hygiene measures in the work place</b></p> <p>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.</p>
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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:**

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 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	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

**Volatile organic compounds:**

With regard to Directive 2010/75/EU, this product has the following characteristics:  
V.O.C. (Supply): 19.53 % weight

	V.O.C. density at 20 °C:	Non-applicable
	Average carbon number:	Non-applicable
	Average molecular weight:	Non-applicable

### SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

9.1	<b>Information on basic physical and chemical properties</b>	For complete information see the product datasheet.	
		<p><b>Appearance:</b> Physical state at 20 °C: Aerosol Appearance: Not available Color: Not available Odor: Not available</p> <p><b>Volatility:</b> Boiling point at atmospheric pressure: -12 °C (Propellant) Vapour pressure at 20 °C: Non-applicable * Vapour pressure at 50 °C: Non-applicable * Evaporation rate at 20 °C: Non-applicable *</p> <p><b>Product description:</b> 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 properties: Non-applicable * Decomposition temperature: Non-applicable * Melting point/freezing point: Non-applicable * Recipient pressure: Non-applicable *</p> <p><b>Flammability:</b> Flash Point: -83 °C (Propellant) Autoignition temperature: 460 °C (Propellant) Lower flammability limit: Non-applicable * Upper flammability limit: Non-applicable *</p>	
9.2	<b>Other Information:</b>	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 X: STABILITY AND REACTIVITY

10.1	<b>Reactivity</b>	No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.
10.2	<b>Chemical stability</b>	Chemically stable under the conditions of storage, handling and use.

10.3	<b>Possibility of hazardous reactions</b>	Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.				
10.4	<b>Conditions to avoid</b>	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	<b>Incompatible materials</b>	Acids	Water	Combustive Materials	Combustible materials	Others
		Not Applicable	Not Applicable	Avoid direct impact	Not Applicable	Avoid alkalis or strong bases
10.6	<b>Hazardous decomposition products</b>	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 (CO <sub>2</sub> ), carbon monoxide and other organic compounds.				

### SECTION XI: TOXICOLOGICAL INFORMATION

11.1	<b>Information on toxicological effects</b>	<p>The experimental information related to the toxicological properties of the product itself is not available. 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.</p> <p><b>Dangerous health implications:</b> 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:</p> <p><b>A. Ingestion:</b></p> <ul style="list-style-type: none"> <li>- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.</li> <li>- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.</li> </ul> <p><b>B. Inhalation:</b></p> <ul style="list-style-type: none"> <li>- Acute toxicity: Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.</li> <li>- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.</li> </ul> <p><b>C. Contact with the skin and the eyes:</b></p> <ul style="list-style-type: none"> <li>- Contact with the skin: Produces skin inflammation.</li> <li>- Contact with the eyes: Produces eye damage after contact.</li> </ul> <p><b>D. CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):</b></p> <ul style="list-style-type: none"> <li>- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.</li> <li>- Mutagenicity: 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.</li> <li>- Reproductive toxicity: May cause harm to breast-fed children</li> </ul> <p><b>E. Sensitizing effects:</b></p> <ul style="list-style-type: none"> <li>- Respiratory: Prolonged exposure can result in specific respiratory hypersensitivity.</li> <li>- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.</li> </ul> <p><b>F. Specific target organ toxicity (STOT)-time exposure:</b> Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.</p>
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**DENNARD PU EXPANSIBLE STRAW FOAM 765ML**

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

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Skin: 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.

**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	
Tris(1-chloro-2-propyl) Phosphate CAS: 13674-84-5 EC: 237-158-7	632 mg/kg	2000 mg/kg	Rat
	11 mg/L (4 h)		Rabbit
			Rat
4,4'-methylenediphenyl diisocyanate, isomers and homologues CAS: 9016-87-9 EC: Non-applicable	Non-applicable	Non-applicable	
	Non-applicable	Non-applicable	
	11 mg/L (4 h) (ATEi)		
Butane CAS: 106-97-8 EC: 203-448-7	Non-applicable	Non-applicable	
	Non-applicable	Non-applicable	
	658 mg/L (4 h)		Rat
Dimethyl ether CAS: 115-10-6 EC: 204-065-8	Non-applicable	Non-applicable	
	Non-applicable	Non-applicable	
	308,5 mg/L (4 h)		Rat
2,2'-dimorpholinyldiethyl ether CAS: 6425-39-4 EC: 229-194-7	2025 mg/kg	3038 mg/kg	Rat
			Rabbit
	Non-applicable		

**SECTION XII: ECOLOGICAL INFORMATION**

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

12.1	Toxicity	Identification	Acute toxicity		Species	Genus
			LC50	EC50		
		Alkanes, C14-17, chloro CAS: 85535-85-9 EC: 287-477-0	0.1 - 1 mg/L (96 h)			Fish
			0.1 - 1 mg/L			Crustacean
			0.1 - 1 mg/L			Algae
12.2	Persistence and degradability	Identification	Degradability		Biodegradability	
			BOD5	COD	Concentration	Period
		Tris(1-chloro-2-propyl) Phosphate CAS: 13674-84-5 EC: 237-158-7	Non-applicable	Non-applicable	100 mg/L	28 days
			Non-applicable	Non-applicable	% Biodegradable	0%
12.3	Bioaccumulative potential	Identification	Bioaccumulation potential			
			BCF	Pow Log		
		Isobutane CAS: 75-28-5 EC: 200-857-2	27	2.76		
			Low			
		Tris(1-chloro-2-propyl) Phosphate CAS: 13674-84-5 EC: 237-158-7	5	2.59		
			Low			
		Propane CAS: 74-98-6 EC: 200-827-9	13	2.86		
			Low			

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		<table border="1"> <tr> <td>Butane CAS: 106-97-8 EC: 203-448-7</td> <td>BCF</td> <td>33</td> </tr> <tr> <td></td> <td>Pow Log</td> <td>2.89</td> </tr> <tr> <td></td> <td>Potential</td> <td>Moderate</td> </tr> <tr> <td>2,2'-dimorpholinyl-diethyl ether CAS: 6425-39-4 EC: 229-194-7</td> <td>BCF</td> <td>3</td> </tr> <tr> <td></td> <td>Pow Log</td> <td></td> </tr> <tr> <td></td> <td>Potential</td> <td>Low</td> </tr> </table>	Butane CAS: 106-97-8 EC: 203-448-7	BCF	33		Pow Log	2.89		Potential	Moderate	2,2'-dimorpholinyl-diethyl ether CAS: 6425-39-4 EC: 229-194-7	BCF	3		Pow Log			Potential	Low																																																			
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12.4	<b>Mobility in Soil</b>	<table border="1"> <thead> <tr> <th>Identification</th> <th>Absorption/desorption</th> <th colspan="2">Volatility</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Isobutane CAS: 75-28-5 EC: 200-857-2</td> <td>Koc</td> <td>35</td> <td>Henry</td> <td>1.206E+5 Pa·m<sup>3</sup>/mol</td> </tr> <tr> <td>Conclusion</td> <td>Very High</td> <td>Dry soil</td> <td>Yes</td> </tr> <tr> <td>Surface tension</td> <td>9.84E-3 N/m (25 °C)</td> <td>Moist soil</td> <td>Yes</td> </tr> <tr> <td rowspan="3">Dimethyl ether CAS: 115-10-6 EC: 204-065-8</td> <td>Koc</td> <td>Non-applicable</td> <td>Henry</td> <td>Non-applicable</td> </tr> <tr> <td>Conclusion</td> <td>Non-applicable</td> <td>Dry soil</td> <td>Non-applicable</td> </tr> <tr> <td>Surface tension</td> <td>1.136E-2 N/m (25 °C)</td> <td>Moist soil</td> <td>Non-applicable</td> </tr> <tr> <td rowspan="3">Propane CAS: 74-98-6 EC: 200-827-9</td> <td>Koc</td> <td>460</td> <td>Henry</td> <td>7.164E+4 Pa·m<sup>3</sup>/mol</td> </tr> <tr> <td>Conclusion</td> <td>Moderate</td> <td>Dry soil</td> <td>Yes</td> </tr> <tr> <td>Surface tension</td> <td>7.02E-3 N/m (25 °C)</td> <td>Moist soil</td> <td>Yes</td> </tr> <tr> <td rowspan="3">Butane CAS: 106-97-8 EC: 203-448-7</td> <td>Koc</td> <td>900</td> <td>Henry</td> <td>9.626E+4 Pa·m<sup>3</sup>/mol</td> </tr> <tr> <td>Conclusion</td> <td>Low</td> <td>Dry soil</td> <td>Yes</td> </tr> <tr> <td>Surface tension</td> <td>1.187E-2 N/m (25 °C)</td> <td>Moist soil</td> <td>Yes</td> </tr> <tr> <td rowspan="3">2,2'-dimorpholinyl-diethyl ether CAS: 6425-39-4 EC: 229-194-7</td> <td>Koc</td> <td>786</td> <td>Henry</td> <td>2E-9 Pa·m<sup>3</sup>/mol</td> </tr> <tr> <td>Conclusion</td> <td>Low</td> <td>Dry soil</td> <td>No</td> </tr> <tr> <td>Surface tension</td> <td>Non-applicable</td> <td>Moist soil</td> <td>No</td> </tr> </tbody> </table>	Identification	Absorption/desorption	Volatility		Isobutane CAS: 75-28-5 EC: 200-857-2	Koc	35	Henry	1.206E+5 Pa·m <sup>3</sup> /mol	Conclusion	Very High	Dry soil	Yes	Surface tension	9.84E-3 N/m (25 °C)	Moist soil	Yes	Dimethyl ether CAS: 115-10-6 EC: 204-065-8	Koc	Non-applicable	Henry	Non-applicable	Conclusion	Non-applicable	Dry soil	Non-applicable	Surface tension	1.136E-2 N/m (25 °C)	Moist soil	Non-applicable	Propane CAS: 74-98-6 EC: 200-827-9	Koc	460	Henry	7.164E+4 Pa·m <sup>3</sup> /mol	Conclusion	Moderate	Dry soil	Yes	Surface tension	7.02E-3 N/m (25 °C)	Moist soil	Yes	Butane CAS: 106-97-8 EC: 203-448-7	Koc	900	Henry	9.626E+4 Pa·m <sup>3</sup> /mol	Conclusion	Low	Dry soil	Yes	Surface tension	1.187E-2 N/m (25 °C)	Moist soil	Yes	2,2'-dimorpholinyl-diethyl ether CAS: 6425-39-4 EC: 229-194-7	Koc	786	Henry	2E-9 Pa·m <sup>3</sup> /mol	Conclusion	Low	Dry soil	No	Surface tension	Non-applicable	Moist soil	No
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12.5	<b>Results of PBT and vPvB assessment</b>	Non-Applicable																																																																					
12.6	<b>Other adverse effects</b>	Not Described																																																																					

**SECTION XIII: DISPOSAL CONSIDERATIONS**

13.1	<b>Waste Treatment Methods</b>	<table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> <th>Waste Class (Regulation (EU) No. 1357/2014)</th> </tr> </thead> <tbody> <tr> <td>16 05 04*</td> <td>Gases in pressure containers (including halons) containing dangerous substances</td> <td>Dangerous</td> </tr> </tbody> </table>	Code	Description	Waste Class (Regulation (EU) No. 1357/2014)	16 05 04*	Gases in pressure containers (including halons) containing dangerous substances	Dangerous
	Code	Description	Waste Class (Regulation (EU) No. 1357/2014)					
	16 05 04*	Gases in pressure containers (including halons) containing dangerous substances	Dangerous					
<b>Type of Waste (Regulation (EU) No 1357/2014):</b>	HP3 Flammable, HP14 Ecotoxic, HP4 Irritant — skin irritation and eye damage, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP13 Sensitizing, HP7 Carcinogenic							
<b>Waste management (disposal and evaluation):</b>	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 (2014/955/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 recommended disposal down the drain. See paragraph 6.2.							
<b>Regulations related to waste management:</b>	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, 2014/955/EU, Regulation (EU) No 1357/2014							


**SECTION XIV: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:** With regard to ADR 2015 and RID 2015:


	14.1	<b>UN Number</b>	UN1950
	14.2	<b>UN proper shipping name</b>	AEROSOLS, flammable
	14.3	<b>Transport hazard class(es)</b>	2
			Labels: 2.1
	14.4	<b>Packing group</b>	N/A
	14.5	<b>Dangerous for the environment</b>	No
	14.6	<b>Special precautions for user</b>	Special regulations: 190, 327, 344, 625
Tunnel restriction code: D Physico-Chemical properties: see section 9 Limited quantities: 1L			
14.7	<b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Non-Applicable	

**Transport of dangerous goods by sea:**

With regard to IMDG 37-14:

	14.1	<b>UN Number</b>	UN1950
	14.2	<b>UN proper shipping name</b>	AEROSOLS, flammable
	14.3	<b>Transport hazard class(es)</b>	2

Labels2.1

	14.4	<b>Packing group</b>	N/A
	14.5	<b>Dangerous for the environment</b>	No
	14.6	<b>Special precautions for user</b>	Special regulations: 190, 277, 327, 344, 63, 959 EmS Codes: F-D, S-U Physico-Chemical properties: see section 9 Limited quantities: 1L
	14.7	<b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Non-Applicable
<b>Transport of dangerous goods by air:</b>			
With regard to IATA/ICAO 2015:			
	14.1	<b>UN Number</b>	UN1950
	14.2	<b>UN proper shipping name</b>	AEROSOLS, flammable
	14.3	<b>Transport hazard class(es)</b>	2
			Labels: 2.1
	14.4	<b>Packing group</b>	N/A
	14.5	<b>Dangerous for the environment</b>	No
14.6	<b>Special precautions for user</b>	Physico-Chemical properties: see section 9	
	14.7	<b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Non-Applicable

**SECTION XV: REGULATORY INFORMATION**

15.1	<p><b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b></p> <p><b>Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII, REACH):</b></p> <p><b>Specific provisions in terms of protecting people or the environment</b></p> <p><b>Other legislation</b></p>	<p>Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable Article 95, REGULATION (EU) No 528/2012: Non-applicable REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Nonapplicable</p> <p>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.</p> <p>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.</p> <p>The product could be affected by sectorial legislation 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</p>
15.2	<b>Chemical safety assessment</b>	The supplier has not carried out evaluation of chemical safety.

#### SECTION XVI: 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 (EU) N° 453/2010, Regulation (EC) N° 2015/830)

**Modifications related to the previous security card which concerns the ways of managing risks. : COMPOSITION/INFORMATION ON INGREDIENTS:**

- Added Content  
Tris(1-chloro-2-propyl) Phosphate (13674-84-5)

- Removed Content  
Phosphoric trichloride, reaction products with propylene oxide

**CLP Regulation (EC) n° 1272/2008:**

- Precautionary statements
- Supplementary information

**Texts of the legislative phrases mentioned in section 2:**

H222: Extremely flammable aerosol  
H315: Causes skin irritation  
H319: Causes serious eye irritation  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H317: May cause an allergic skin reaction  
H351: Suspected of causing cancer  
H362: May cause harm to breast-fed children  
H335: May cause respiratory irritation  
H373: May cause damage to organs through prolonged or repeated exposure  
H413: May cause long lasting harmful effects to aquatic life  
H302+H332: Harmful if swallowed or if inhaled  
H229: Pressurised container: May burst if heated

**Texts of the legislative phrases mentioned 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

**CLP Regulation (EC) n° 1272/2008:**

Acute Tox. 4: H302 - Harmful if swallowed  
Acute Tox. 4: H332 - Harmful if inhaled  
Aquatic Acute 1: H400 - Very toxic to aquatic life  
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects  
Carc. 2: H351 - Suspected of causing cancer  
Eye Irrit. 2: H319 - Causes serious eye irritation  
Flam. Gas 1: H220 - Extremely flammable gas  
Lact.: H362 - May cause harm to breast-fed children  
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 safety 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 safety data sheet only refers to this product, which should not be used for needs other than those specified.