


SAFETY DATA SHEET

According to the Regulation (EC) No 1907/2006 as amended by Regulation (EU) No 453/2010

Date of issue: 22.9.2014	Replaces issue from: -
Date of revision: -	
Product name: DEXSO D.M.E.	Page: 1/6

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING	
1.1	Product identifier: Name: DEXSO D.M.E. Substance name: Dimethyl Ether CAS No.: 115-10-6 EC No.: 204-065-8 Registration number: 01-2119472128-37
1.2	Relevant identified uses of the substance: Organic Degreaser for consumer use Uses advised against: Do not use near sources of ignition.
1.3	Details of the supplier of the safety data sheet: Dexso GmbH The full address: Rührbergweg 3, 4133 Pratteln, Switzerland Telephone: +41 79 193 49 30 E-mail address for a competent person responsible for the safety data sheet: contact@dexso.com
1.4	Emergency telephone number: National Poisons Information Service (NPIS) (information only for health risks – acute intoxication of humans and animals) England and Wales: NHS Direct - 0845 4647 or 111 Scotland: NHS 24 - 08454 24 24 24

2. HAZARDS IDENTIFICATIONS	
2.1	Classification of the substance according to Regulation 2008/1272/EC: Aerosol, cat.1, H222, H229 (For the full text of the H-Statements mentioned in this Section, see Section 16.) The most important adverse effects: - physical and chemical: The substance is classified as Aerosol, cat.1. - on the human health: The substance is not classified as dangerous. - on the environment: The substance is not classified as dangerous.
2.2	Label elements according to Regulation 2008/1272/EC:  Hazard pictogram(s): Signal word(s): Danger Hazard statement(s): H 222 Extremely flammable aerosol. H 229 Pressurised container: May burst if heated. Precautionary statement(s): P 102 Keep out of reach of children. P 210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P 211 Do not spray on an open flame or other ignition source. P 251 Do not pierce or burn, even after use. P 260 Do not breathe spray. P 410+P 412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P 501 Dispose of contents/container to the municipal or sorted waste collection point. Other usable label elements: no
2.3	Other hazards: not known

3. COMPOSITION/INFORMATION ON INGREDIENTS								
				Classification according to 67/548/EEC		Classification according to 1272/2008/EC		
Chemical name	Range of content %w/w	Reg. No	CAS		Symbol letter	R-phrases*	Hazard classes, Category codes *	H-phrases *
				EC				
Dimethyl ether	>99,9	01-2119472128-37	115-10-6		F+	12	Flam. Gas 1 Press gas	220
			204-065-8					280

Notes:

* For the full text of the R-phrases and H-phrases, Hazard classes and Category codes mentioned in this Section, see Section 16. The values of exposition limits are listed in the part 8, if established.

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57.

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4.	FIRST AID MEASURES
4.1	<p>Description of first aid measures:</p> <ul style="list-style-type: none"> - General advice : When symptoms persist or in all cases of doubt seek medical advice. - Inhalation: Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. Give oxygen or artificial respiration if needed. Seek medical advice after significant exposure. - Skin contact: May cause frostbite. Wash frost-bitten areas with plenty of water. Do not remove clothing. Thaw frosted parts with lukewarm water. Do no rub affected area. Seek medical advice. - Eyes contact: Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. Seek medical advice after significant exposure. - Ingestion: Not likely to occur.
4.2	Most important symptoms and effects, both acute and delayed: Frostbite
4.3	Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

5.	FIREFIGHTING MEASURES
5.1	<p>Extinguishing media: powder Unsuitable extinguishing media: none</p>
5.2	<p>Special hazards arising from the substance or mixture: Vapours may form explosive mixtures with air. Vapours may travel to areas away from work site before igniting/flashing back to vapour source. The heat from fire increases inner pressure in containers and can cause their bursting or explosion. The exploding containers could fly up to the distance several ten meters.</p>
5.3	Advice for fire-fighters: Wear a self-contained respirator and protective clothing. Keep containers cool with water spray until well after the fire is out.

6.	ACCIDENTAL RELEASE MEASURES
6.1	Personal precautions, protective equipment and emergency procedures:
6.1.1	For non-emergency personnel: No smoking. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
6.1.2	For emergency responders: No smoking. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
6.2	Environmental precautions: Prevent from spreading or entering into drains, ditches or rivers.
6.3	Methods and material for containment and cleaning up: Evacuate area. Ventilate the area.
6.4	Reference to other sections: For personal protection see section 8.

7.	HANDLING AND STORAGE
7.1	<p>Precautions for safe handling: For personal protection see section 8. Use only with adequate ventilation. Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release. Do not breathe spray. Protect your eyes. Pressurized container: May burst if heated. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Use only as directed.</p> <p>Advice on protection against fire and explosion: Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Vapours are heavier than air and may spread along floors. Vapours may travel to areas away from work site before igniting/flashing back to vapour source.</p>
7.2	Conditions for safe storage, including any incompatibilities: Store away from heat. Keep away from direct sunlight. Keep in a well-ventilated place.
7.3	Specific end use(s): not relevant

8.	EXPOSURE CONTROLS/PERSONAL PROTECTION			
8.1	Control parameters:			
	National occupational exposure limit values: DE: Arbeitsplatzgrenzwert (AGW)			
	Name of substance	CAS		
	Dimethylether	115-10-6	1000 ml/m ³	1900 mg/m ³ DE TRGD 900
	Note: ---			
	Exposure limit values according to directives 2000/39/EC, 2006/15/EC and 2009/161/EU:			

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	Name of substance	CAS	TWA / 8 hours		STEL / short time		Notes
			mg/m ³	ppm	mg/m ³	ppm	
	Dimethyl Ether	115-10-6	1920	1000	-	-	-
	Biological limit values: not prescribed DNEL and PNEC values (MSDS of supplier): DNEL/DMEL: Workers, Inhalation , Long-term systemic effects: 1894 mg/m ³ Consumers, Inhalation, Long-term systemic effects: 471 mg/m ³ PNEC: Fresh Water: 0.155 mg/l, Marine water: 0.016 mg/l, Intermittent water: 1.549 mg/l, Sewage treatment plant 160 mg/l, Fresh water sediment 0.681 mg/kg, Marine sediment: 0.069 mg/kg, Soil: 0,045 mg/kg.						
8.2	Exposure controls:						
8.2.1	Appropriate engineering controls: Effective exhaust ventilation system						
8.2.2	Individual protection measures, such as personal protective equipment:						
8.2.3	Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Eyes/face, skin/hand and respiratory protection: Tightly fitting safety goggles. Protective suit. Thermal hazards: None when used as directed. Environmental exposure controls: Prevent release to the environment.						

9.	PHYSICAL AND CHEMICAL PROPERTIES	
9.1	Information on basic physical and chemical properties	
	Appearance:	Physical state (at 20°C): system liquid-vapour in pressurized metal container Colour: colourless
	Odour:	odourless
	Odour threshold:	Not available
	pH:	Not applicable
	Melting point/freezing point:	-141 °C
	Initial boiling point and boiling range:	-24,8 °C
	Flash point:	Not applicable
	Evaporation rate:	Not available
	Flammability:	Extremely flammable
	Explosive limits:	upper (%v/v): 26.2; lower (%v/v): 3.3
	Vapour pressure at 20°C:	5 100 hPa at 20 °C, 11 400 hPa at 50 °C
	Vapour density:	1,59
	Density 20°C:	670 kg/m ³
	Solubility(ies):	In water: insoluble, in fats (oil): soluble
	Partition coefficient: n-octanol/water:	log Pow: 0,07 at 25 °C
	Auto-ignition temperature:	226 °C at 1 013 hPa, Method: A15 DuPont-18691-388
	Decomposition temperature:	Not available
	Viscosity:	Not available
	Explosive properties:	Not explosive
	Oxidising properties:	Not classified as oxidising
9.2	Other information	Not available

10.	STABILITY AND REACTIVITY	
10.1	Reactivity: Stable under recommended storage conditions.	
10.2	Chemical stability: Stable under recommended storage conditions.	
10.3	Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.	
10.4	Conditions to avoid: even short-time temperatures above 50°C, flames and sparks.	
10.5	Incompatible materials: Hydrogen fluoride, Strong oxidizing agents, Oxygen, Rubber products, Viton (R)	
10.6	Hazardous decomposition products: In case of fire hazardous decomposition products may be produced such as: Carbon dioxide (CO ₂), carbon monoxide (CO), oxides of nitrogen (NO _x), dense black smoke.	

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11.	TOXICOLOGICAL INFORMATION
11.1	Information on toxicological effects:
	<p>Toxicological effects of main substances: Dimethyl Ether (Information from MSDS of supplier)</p> <p>a) acute toxicity:</p> <p>- LD₅₀ oral, rat (mg/kg): not applicable</p> <p>- LD₅₀ dermal, rat (mg/kg): not applicable</p> <p>- LC₅₀ inhalation, rat (mg/L): 309 (4 h)</p> <p>b) skin corrosion/irritation: May cause frostbite.</p> <p>c) serious eye damage/irritation: not applicable</p> <p>d) respiratory/skin sensitisation: not applicable</p> <p>e) repeated dose toxicity: Species: rat , Application Route: inhalation (vapour), Exposure time: 2 years, NOEL: 47 mg/l, Method: OECD Test Guideline 452</p> <p>f) carcinogenicity: Based on available data, the classification criteria are not met.</p> <p>g) mutagenicity: Based on available data, the classification criteria are not met.</p> <p>h) toxicity for reproduction:</p> <p>Genotoxicity in vitro: Ames test: negative, Method: OECD Guide-line 471 - Bacterial Reverse Mutation Test, In vitro cytogenetic test in human lymphocytes: negative Method: OECD Guide-line 473</p> <p>Genotoxicity in vivo: Species: Drosophila melanogaster, Method: OECD Test Guideline 477, negative</p> <p>Reproductive toxicity/Fertility: Method: OECD Test Guideline 452, Species: rat , Application Route: Inhalation , Result: Animal testing did not show any effects on fertility.</p> <p>Reproductive toxicity/Development/Teratogenicity: Method: OECD Test Guideline 414, Species: rat, Application Route: Inhalation</p> <p>Target Organ Systemic Toxicant Species: rat , Application Route: inhalation (vapour), Exposure time: 2 years, NOEL: 47 mg/l, Method: OECD Test Guideline 452</p> <p>- Repeated exposure:</p> <p>Aspiration toxicity: No aspiration toxicity classification</p>
11.1.7	Information on likely routes of exposure: skin, eyes, ingestion, inhalation
11.1.8	Symptoms related to the physical, chemical and toxicological characteristics:
	<p>- skin: May cause frostbite. May degrease the skin.</p> <p>- eyes: May cause irritation.</p> <p>- inhalation (big amount): May cause irritation of respiratory tract.</p>
11.1.9	Delayed and immediate effects as well as chronic effects from short and long-term exposure: Not observed
11.1.10	Interactive effects: Not observed
11.1.11	Absence of specific data: Not available
11.1.12	Mixture versus substance information: is not relevant
11.1.13	Other information: None

12.	ECOLOGICAL INFORMATION
12.1	Toxicity: acute toxicity for aquatic organisms: (Information from MSDS of supplier)
	<p>LC₅₀96h, fish (mg/L): >4,1</p> <p>EC₅₀48h, daphnia (mg/L): >4,4</p> <p>EC₅₀ 96h, algae (mg/L): 154,9</p> <p>EC₁₀, bacteria (mg/L): >1600</p>
12.2	Persistence and degradability:
	<p>Persistence: Not available</p> <p>Degradability: Not readily biodegradable.</p> <p>5 % - Method: OECD Guide-line 301 D - Ready Biodegradability: Closed Bottle Test</p>
12.3	Bioaccumulative potential: Bioaccumulation is unlikely.
12.4	Mobility in soil: Not relevant
12.5	Results of PBT and vPvB assessment: Not classified as PBT or vPvB
12.6	Other adverse effects: Not available

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13.	DISPOSAL CONSIDERATIONS
13.1	<p>Waste treatment methods: Suitable methods for disposal: (code 200113 - Solvents) incineration in an incinerator or disposing in a collection point for hazardous wastes. Suitable methods for disposal of the packaging: (code 200140 - Metals) empty packaging dispose in a collection point for sorted wastes or municipal waste. Physical/chemical properties that may affect waste treatment options: extremely flammable Sewage disposal : not allowed Special precautions for recommended waste treatment options (only for disposal of a big amount of substance): Regarding to the flammability is necessary to dispose it in a well-ventilated area away from sources of ignition. No smoking. Directive nr. 98/2008/EC with all amendments.</p>

14.	TRANSPORT INFORMATION																								
14.1	Special precautions: none																								
14.2	Transport classification :																								
	<table border="0"> <tr> <td>ADR/RID:</td> <td>ICAO/IATA:</td> <td>IMDG:</td> </tr> <tr> <td>UN No: 1950</td> <td>UN No: 1950</td> <td>UN No: 1950</td> </tr> <tr> <td>Class: 2</td> <td>Class: 2.1</td> <td>Class: 2</td> </tr> <tr> <td>Classification code: 5F</td> <td>Labels: Flamm.Gas</td> <td>Subsidiary risk: no</td> </tr> <tr> <td>Shipping name: AEROSOLS, flammable</td> <td>Shipping name: AEROSOLS, flammable</td> <td>Shipping name: AEROSOLS, flammable</td> </tr> <tr> <td>Packing group: not prescribed</td> <td>Packing group: not prescribed</td> <td>Marine pollutant: no</td> </tr> <tr> <td>Limited quantity: 1 L</td> <td>LQ: till 30 kg</td> <td>Limited quantity: 1L</td> </tr> <tr> <td>Tunnel restriction code: D</td> <td></td> <td>EMS: F-D, S-U</td> </tr> </table>	ADR/RID:	ICAO/IATA:	IMDG:	UN No: 1950	UN No: 1950	UN No: 1950	Class: 2	Class: 2.1	Class: 2	Classification code: 5F	Labels: Flamm.Gas	Subsidiary risk: no	Shipping name: AEROSOLS, flammable	Shipping name: AEROSOLS, flammable	Shipping name: AEROSOLS, flammable	Packing group: not prescribed	Packing group: not prescribed	Marine pollutant: no	Limited quantity: 1 L	LQ: till 30 kg	Limited quantity: 1L	Tunnel restriction code: D		EMS: F-D, S-U
ADR/RID:	ICAO/IATA:	IMDG:																							
UN No: 1950	UN No: 1950	UN No: 1950																							
Class: 2	Class: 2.1	Class: 2																							
Classification code: 5F	Labels: Flamm.Gas	Subsidiary risk: no																							
Shipping name: AEROSOLS, flammable	Shipping name: AEROSOLS, flammable	Shipping name: AEROSOLS, flammable																							
Packing group: not prescribed	Packing group: not prescribed	Marine pollutant: no																							
Limited quantity: 1 L	LQ: till 30 kg	Limited quantity: 1L																							
Tunnel restriction code: D		EMS: F-D, S-U																							

15.	REGULATORY INFORMATION
15.1	<p>Safety, health and environmental regulations/legislation specific for the substance or mixture: Commission Regulation nr. 1907/2006/EC (REACH) with all amendments. Directive nr. 75/324/EEC with all amendments. Water contaminating class (Germany): WGK 1 slightly water endangering</p>
15.2	Chemical safety assessment: A Chemical Safety Assessment has been carried out for this substance (Dimethyl Ether).

16.	OTHER INFORMATION
16.1	<p>List of relevant R-phrases and H-phrases, Hazard classes and Category codes listed in the part 3: R12 Extremely flammable. H220 Extremely flammable gas. H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.</p> <p>Press Gas - Gas under pressure Flam. Gas 1 - Flammable gas, Hazard Category 1 Aerosol 1 - Aerosol, Hazard Category 1</p>
16.2	<p>Instructions for training: Persons who handle the product shall be instructed about the handling hazards and requirements for the health and environment precaution (see the appropriate provisions of the Labour Code). Each employer shall in accordance with Article 35 of the Regulation (EC) of the European Parliament and Council No. 1907/2006 provide access to information from the safety data sheet to all personnel who use this product or are exposed to its effects at work, as well as to their representatives.</p> <p>The information provided in this safety data sheet is supplied in good faith and is accurate at the date of its publication. The information will be updated as and when appropriate. It is not a specification of product nor does it list its uses, for which the label on the packaging should be carefully studied. In compiling the safety data sheet due</p>

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16.3 account has been taken of all proper and recommended applications of the product of which we are aware and any user must consult us before applying it to any novel or unusual use. The company accepts no responsibility unless the product is used as recommended.

Sources for compilation of SDS: SDS of Demeon D, ECHA databases

List of used abbreviations:

ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road

ECHA: European Chemicals Agency

EMS: Environmental Management System

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

IMDG: International Maritime Dangerous Goods

IUCLID: International Uniform Chemical Information Database

DNEL: Derived no-effect level

EC₅₀: Effective concentration for inhibiting 50% of the test organisms

IC₅₀: Inhibitory Concentration for 50% of test organisms

LC₅₀: Lethal Concentration for 50% of test organisms

LD₅₀: Lethal Dose for 50% of test organisms

LQ: Limited Quantity

NPK-P: Maximal Permissible Concentration in Working Climate)

PEL: Permissible Exposure Limit

PNEC: Predicted no-effect concentration

RID: Regulations concerning the International Transport of Dangerous Goods by Rail

SDS: Safety Data Sheet

STEL: Short Time Exposure Limit

TWA: Time-Weighted Average

16.4 Changes to the previous version of the SDS: none