

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Demotec 15 plus Liquid

Print date: 07.09.2018

Product code: 22402-EN

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Demotec 15 plus Liquid

Product group: Liquid component

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

Use of the substance/mixture

Embedding material (liquid component) for material testing.

1.3. Details of the supplier of the safety data sheet

Company name:	Demotec Demel e.K.	
Street:	Brentanostraße 22	
Place:	D-61130 Nidderau	
Telephone:	+49 (0)6187-905670	Telefax: +49 (0)6187-9056711
e-mail:	demotec@demotec.de	
Contact person:	Alexander Demel	Telephone: +49 (0)6187-905670
e-mail:	demotec@demotec.de	
Internet:	www.demotec.de	

1.4. Emergency telephone number:

Germany / Berlin +49 (0)30 - 306 867 00

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 2

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Germ cell mutagenicity: Muta. 2

Carcinogenicity: Carc. 2

Reproductive toxicity: Repr. 2

Specific target organ toxicity - repeated exposure: STOT RE 1

Hazardous to the aquatic environment: Aquatic Acute 1

Hazard Statements:

Highly flammable liquid and vapour.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

Suspected of causing genetic defects.

Suspected of causing cancer.

Suspected of damaging the unborn child.

Causes damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

styrene

Methyl methacrylate

1,4-dihydroxybenzene; hydroquinone; quinol

1,4-Butandiol dimethacrylate

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Signal word: Danger



Pictograms:

Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P321	Specific treatment (see ... on this label).
P370+P378	In case of fire: Use ... to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures: Styrene, Methyl methacrylate

Hazardous components

CAS No	Chemical name	Quantity
	EC No	Index No
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
100-42-5	styrene	10 - < 15 %
	202-851-5	601-026-00-0
	Flam. Liq. 3, Repr. 2, Acute Tox. 4, STOT RE 1, Skin Irrit. 2, Eye Irrit. 2; H226 H361d H332 H372 H315 H319	
80-62-6	Methyl methacrylate	5 - < 10 %
	201-297-1	01-2119452498-28
	Flam. Liq. 1, Skin Irrit. 2, Skin Sens. 1, STOT SE 3; H224 H315 H317 H335	
99-97-8	N,N-dimethyl-p-toluidine	1 - < 5 %
	202-805-4	612-056-00-9
	Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT RE 2, Aquatic Chronic 3; H331 H311 H301 H373 ** H412	
111-77-3	2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether	1 - < 5 %

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203-906-6

603-107-00-6

Repr. 2; H361d ***

123-31-9	1,4-dihydroxybenzene; hydroquinone; quinol	1 - < 5 %
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204-617-8

604-005-00-4

Carc. 2, Muta. 2, Acute Tox. 4, Eye Dam. 1, Skin Sens. 1, Aquatic Acute 1 (M-Factor = 10); H351 H341 H302 H318 H317 H400

2082-81-7	1,4-Butandiol dimethacrylate	1 - < 5 %
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218-218-1

Skin Sens. 1; H317

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated, saturated clothing immediately. If skin irritation or rash occurs: Get medical advice/attention.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Medical treatment necessary.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media

Water.

5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on storage compatibility

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

7.3. Specific end use(s)

Embedding material

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
111-77-3	2-(2-Methoxyethoxy)ethanol	10	50.1		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
123-31-9	Hydroquinone	-	0.5		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
80-62-6	Methyl methacrylate	50	208		TWA (8 h)	WEL
		100	416		STEL (15 min)	WEL
100-42-5	Styrene	100	430		TWA (8 h)	WEL

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250

1080

STEL (15 min)

WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
80-62-6	Methyl methacrylate			
Worker DNEL, long-term		inhalation		208 mg/m ³
Worker DNEL, long-term		dermal		17 mg/kg bw/day

8.2. Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	blue
Odour:	characteristic

Test method

pH-Value:	not determined
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Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	>100 °C
Flash point:	15 °C

Flammability

Solid:	not applicable
Gas:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Ignition temperature:	430 °C

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Auto-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidizing.

Vapour pressure: not determined

Density: not determined

Water solubility: insoluble

Solubility in other solvents

not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose		Species	Source
100-42-5	styrene				
	oral	LD50	2650 mg/kg	Rat	GESTIS
	inhalative (4 h) vapour	LC50	12 mg/l	Rat	GESTIS
	inhalative aerosol	ATE	1,5 mg/l		
80-62-6	Methyl methacrylate				

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	oral	LD50	>5000 mg/kg	Rat	OECD 401
	dermal	LD50	>5000 mg/kg	Rabbit	
	inhalative vapour	LC50	29,8 mg/l	Rat	
99-97-8	N,N-dimethyl-p-toluidine				
	oral	ATE	100 mg/kg		
	dermal	ATE	300 mg/kg		
	inhalative (4 h) vapour	LC50	1,4 mg/l	Rat	GESTIS
	inhalative aerosol	ATE	0,5 mg/l		
111-77-3	2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether				
	oral	LD50	ca. 6500 mg/kg	Rat	
	dermal	LD50	ca. 6450 mg/kg	Rabbit	
	inhalative (1 h) vapour	LC50	> 200 mg/l	Rat	
123-31-9	1,4-dihydroxybenzene; hydroquinone; quinol				
	oral	LD50	302 mg/kg	Rat	IUCLID
2082-81-7	1,4-Butandiol dimethacrylate				
	oral	LD50	> 10000 mg/kg	Rat	
	dermal	LD50	> 3000 mg/kg	Rabbit	

Additional information on tests

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic organisms.

CAS No	Chemical name				
	Aquatic toxicity	Dose	[h] [d]	Species	Source
100-42-5	styrene				
	Acute algae toxicity	ErC50	0,72 mg/l	96 h	GESTIS
80-62-6	Methyl methacrylate				
	Acute fish toxicity	LC50	> 79 mg/l	96 h Oncorhynchus mykiss (Rainbow trout)	OECD 203
	Acute algae toxicity	ErC50	> 110 mg/l	72 h Selenastrum capricornutum	OECD 201
	Acute crustacea toxicity	EC50	69 mg/l	48 h Daphnia magna (Big water flea)	OECD 202
	Crustacea toxicity	NOEC	37 mg/l	21 d Daphnia magna (Big water flea)	OECD 202
111-77-3	2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether				
	Acute fish toxicity	LC50	7500 mg/l	96 h Lepomis macrochirus	
	Acute algae toxicity	ErC50	> 500 mg/l	72 h Desmodesmus subspicatus	
	Acute crustacea toxicity	EC50	> 500 mg/l	48 h Daphnia magna	
123-31-9	1,4-dihydroxybenzene; hydroquinone; quinol				
	Acute fish toxicity	LC50	0,44 mg/l	96 h Pimephales promelas	IUCLID

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Acute algae toxicity	ErC50	0,335 mg/l	72 h Selenastrum capricornutum IUCLID
Acute crustacea toxicity	EC50	0,29 mg/l	48 h Daphnia magna

2082-81-7 1,4-Butandiol dimethacrylate

Acute fish toxicity	LC50	32,5 mg/l	96 h Oncorhynchus mykiss (Rainbow trout)
Acute crustacea toxicity	EC50	7,51 mg/l	48 h Daphnia magna (Big water OECD 211 flea)
Crustacea toxicity	NOEC	7,51 mg/l	Selenastrum capricornutum

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
100-42-5	styrene	3,05
80-62-6	Methyl methacrylate	1,38
99-97-8	N,N-dimethyl-p-toluidine	2,81
111-77-3	2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether	-0,68
2082-81-7	1,4-Butandiol dimethacrylate	3,1

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 1866
14.2. UN proper shipping name:	Resin solution
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Classification code:	F1
Special Provisions:	640D

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Limited quantity: 5 L
 Excepted quantity: E2
 Transport category: 2
 Hazard No: 33
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1866
14.2. UN proper shipping name: Resin solution
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3
 Classification code: F1
 Special Provisions: 640D
 Limited quantity: 5 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1866
14.2. UN proper shipping name: Resin solution
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3
 Special Provisions: -
 Limited quantity: 5 L
 Excepted quantity: E2
 EmS: F-E, S-E

Air transport (ICAO)

14.1. UN number: UN 1866
14.2. UN proper shipping name: Resin solution
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3

 Special Provisions: A3
 Limited quantity Passenger: 1 L
 Passenger LQ: Y341
 Excepted quantity: E2
 IATA-packing instructions - Passenger: 353
 IATA-max. quantity - Passenger: 5 L
 IATA-packing instructions - Cargo: 364
 IATA-max. quantity - Cargo: 60 L

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

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2010/75/EU (VOC): 20,3 %

2004/42/EC (VOC): 20,3 %

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 3 - highly water contaminating

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H224 Extremely flammable liquid and vapour.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H361d Suspected of damaging the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

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

H400 Very toxic to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)