

DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

□□□ (CLP) : □□
□□·□□ □□ (CLP) : H302 - □□□ □□□.
H315 - □□□ □□□ □□□.
H317 - □□□□□ □□ □□□ □□□ □□□.
H319 - □□ □□ □□□ □□□.
H410 - □□□ □□□ □□ □□□□□□ □□ □□□.
□□ □□ □□(CLP) : P261 - □□·□·□□·□□□·□□·□□□□ □□□ □□□□ □□□□.
P273 - □□□□ □□□□ □□□.
P280 - □□□□, □□□, □□□, □□□□□ □(□) □□□□□.
P301+P312 - □□ □□: □□□□ □□□ □□ □□ □□ □□ □□ □(□) □□□□.
P302+P352 - □□□ □□□ □□□ □□ □□□□.
P305+P351+P338 - □□ □□□□: □□ □□ □□ □□□□ □□□□. □□□□ □□□ □□□ □□□□□□. □□ □□□.

2.3. □□ □□

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□□ 3: □□□□□ □□ □□□□

3.1. □□□□

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□□	□□□□	%
DIETHYL ETHOXYMETHYLENEMALONATE	CAS □□: 87-13-8 EC □□: 201-725-7	100

□□ 4: □□□□□□

4.1. □□□□ □□

□□ □□ □□ : □□□□ □□□ □□□□(□□)□ □□□ □□□□.
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□□□ □□□□ □ : Wash skin with plenty of water. □□□ □□□ □□□□. □□ □□ □□ □□□ □□□□: □□□□ □□/□□ □□□□.
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First-aid measures for first aider : □□□□ □□□□ □□□ □□ □□ □□□ □□□□ □□□.

4.2. □□ □□□□ □□ □□□ □□ □□□

□□ □□ □□/□□ : None under normal conditions.
□□ □□ □□ □□/□□ : □□. □□□□□ □□ □□□ □□□ □□□.
□□ □□ □□/□□ : Eye irritation.
□□ □□ □□/□□ : □□□ □□□.

4.3. □□□□ □□ □□□ □□ □□□ □□ □□□

Treat symptomatically.

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5.1. □□□□ □□□

□□□ □□□ : Water spray. Dry powder. Foam. Carbon dioxide.
□□□□ □□□ : Do not use a heavy water stream.

DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS

□□□□□□□□

□□ (EU) 2020/878 □□ □□□□ REACH □□ (EC) 1907/2006 □□ □□

7.3. □□ □□ □□

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□□ 8: □□□□ □□□□□□

8.1. □□ □□ □□

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8.2. □□□□

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Ensure good ventilation of the work station.

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Wear recommended personal protective equipment.

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□ □□:

Chemical goggles or safety glasses

Skin protection

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Wear a mask

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Protective gloves

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Wear appropriate mask

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□□ 9: □□□□□□ □□

9.1. □□□□ □□□□□□ □□□□ □□ □□

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□□

: Colourless to Light yellow.

□□

: Clear liquid.

□□□

: 216.23 g/mol

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: unpleasant.

□□ □□

: □□□□

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: □□□□

□□□

: -33 °C

□□ □□□□ □□□□ □□

: 279 – 281 °C

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□□ □□□

: □□□□

□□□

: 144 °C - closed cup

□□□□ □□

: 225 °C

DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS

□□□□□□□□

□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

□□ □□	: > 279 °C
pH	: □□□□
□□(□□□)	: □□□□
□□□	: □: Immiscible with water.
Partition coefficient n-octanol/water (Log Kow)	: □□□□
□□□	: 0.0004 hPa at 20 °C
50°C□□□ □□□	: □□□□
□□	: 1.08 g/cm³ at 20 °C
□□	: □□□□
20°C□□□ □□ □□ □□	: □□□□
□□ □□	: □□□□

9.2. □□□□□□□□

□□ □□ □□	
□□□	: 1.461 – 1.463 (20 °C, 589 nm)

□□ 10: □□□ □□□□

10.1. □□□

The product is non-reactive under normal conditions of use, storage and transport.

10.2. □□□ □□□

Stable under normal conditions.

10.3. □□ □□□ □□□

No dangerous reactions known under normal conditions of use.

10.4. □□□ □□□

None under recommended storage and handling conditions (see section 7).

10.5. □□□ □□□

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10.6. □□□ □□□□ □□□□

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

□□ 11: □□□ □□ □□

11.1. □□ (EC) No 1272/2008 □□□□, □□□ □□□ □□ □□

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11.2. □□ □□ □□

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DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

□□ 12: □□□ □□□ □□

12.1. □□

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12.2. □□□ □□□□

DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS (87-13-8)	
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12.3. □□ □□□

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12.4. □□ □□□

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12.5. PBT □ vPvB □□ □□

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12.6. □□□ □□ □□

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12.7. □□ □□ □□

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□□ 13: □□□ □□□□

13.1. □□□ □□□

□□ □□(□□□) : Disposal must be done according to official regulations.
□□□ □□□ : Dispose of contents/container in accordance with licensed collector’s sorting instructions.
□□ □□ □□ □□ : Disposal must be done according to official regulations.
□□/□□ □□ □□□□ : Disposal must be done according to official regulations.
□□ □□ : Do not re-use empty containers.

□□ 14: □□□ □□□ □□

ADR / IMDG / IATA / ADN / RID □□ □□

14.1. UN □□ □□ ID □□

UN-□□ (ADR) : UN 3082
UN-□□ (IMDG) : UN 3082
UN-□□ (IATA) : UN 3082
UN-□□ (ADN) : UN 3082
UN-□□ (RID) : UN 3082

14.2. UN □□ □□□

□□ □□□ (ADR) : □□□□□ □□, □□, □□ □□□ □□□ □□ □
□□ □□□ (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
□□ □□□ (IATA) : Environmentally hazardous substance, liquid, n.o.s.
□□ □□□ (ADN) : □□□□□ □□, □□, □□ □□□ □□□ □□ □
□□ □□□ (RID) : □□□□□ □□, □□, □□ □□□ □□□ □□ □
□□ □□ □□ (ADR) (ADR) : UN 3082 □□□□□ □□, □□, □□ □□□ □□□ □□ □ (DIETHYL
ETHOXYMETHYLENEMALONATE), 9, III, (-)

DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS

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□□ (EU) 2020/878□ □□ □□□ REACH □□ (EC) 1907/2006□ □□

□□ □□ □□ (IMDG)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIETHYL ETHOXYMETHYLENEMALONATE), 9, III, MARINE POLLUTANT
□□ □□ □□ (IATA)	: UN 3082 Environmentally hazardous substance, liquid, n.o.s. (DIETHYL ETHOXYMETHYLENEMALONATE), 9, III
□□ □□ □□ (ADN)	: UN 3082 □□□□□ □□, □□, □□ □□□ □□□ □□ □, 9, III
□□ □□ □□ (RID)	: UN 3082 □□□□□ □□, □□, □□ □□□ □□□ □□ □, 9, III

14.3. □□□□□ □□□ □□

ADR	
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□□ □□ (ADR)	: 9
	:
	

IMDG	
□□□□□ □□□ □□ (IMDG)	: 9
□□ □□ (IMDG)	: 9
	:
	

IATA	
□□□□□ □□□ □□ (IATA)	: 9
□□ □□ (IATA)	: 9
	:
	

ADN	
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□□ □□ (ADN)	: 9
	:
	

RID	
□□□□□ □□□ □□ (RID)	: 9
□□ □□ (RID)	: 9
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14.4. □□□□

□□ □□ (ADR)	: III
□□ □□(IMDG)	: III
□□ □□ (IATA)	: III
□□ □□(ADN)	: III
□□ □□(RID)	: III

14.5. □□ □□□□

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DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS

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□□ (EU) 2020/878□ □□ □□□ REACH □□ (EC) 1907/2006□ □□

EmS-No. (□□) : F-A
EmS-No. (□□) : S-F
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14.6. □□□□ □□ □□ □□□□

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□□ □□ (ADR) : M6
□□ □□(ADR) : 274, 335, 375, 601
□□□(ADR) : 5L
□□□(ADR) : E1
□□ □□(ADR) : P001, IBC03, LP01, R001
□□ □□ (ADR) : PP1
□□ □□ □□ □□ □□(ADR) : MP19
□□□ □□ □ □□ □□□□ □□ (ADR) : T4
□□□ □□ □ □□ □□□□ □□ □□ (ADR) : TP1, TP29
□□ □□(ADR) : LGBV
□□ □□□□ □□ : AT
□□ □□(ADR) : 3
□□ □□ □□ □□ - □□(ADR) : V12
□□ □□ □□ □□ -□□, □□ □ □□(ADR) : CV13
□□ □□ □□(Kemler □□) : 90
Orange plates (□□□□□□) :



□□ □□ □□ (ADR) : -
EAC □□ : •3Z

□□ □□
□□ □□ (IMDG) : 274, 335, 969
□□ □□(IMDG) : 5 L
□□□(IMDG) : E1
□□ □□ (IMDG) : LP01, P001
□□ □□ (IMDG) : PP1
IBC □□ □□(IMDG) : IBC03
□□ □□ (IMDG) : T4
□□ □□ □□ (IMDG) : TP1, TP29
□□ □□ (IMDG) : A

□□ □□
PCA □□ □□(IATA) : E1
PCA □□ □□(IATA) : Y964
PCA □□ □□ □□ □□□(IATA) : 30kgG
PCA □□ □□(IATA) : 964
PCA □□ □□□(IATA) : 450L
CAO □□ □□(IATA) : 964
CAO □□ □□□(IATA) : 450L
□□ □□(IATA) : A97, A158, A197, A215
ERG □□(IATA) : 9L

□□ □□ □□
□□ □□(ADN) : M6
□□ □□(ADN) : 274, 335, 375, 601
□□□(ADN) : 5 L
□□□(ADN) : E1
□□□□(ADN) : T
□□ □□(ADN) : PP
□□ □□/□□□ □□(ADN) : 0

□□ □□
□□ □□(RID) : M6
□□ □□(RID) : 274, 335, 375, 601

DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS

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□□ (EU) 2020/878□ □□ □□□ REACH □□ (EC) 1907/2006□ □□

□□ □□(RID)	: 5L
□□□(RID)	: E1
□□ □□ (RID)	: P001, IBC03, LP01, R001
□□ □□ (RID)	: PP1
□□ □□ □□ □□ □□(RID)	: MP19
□□□□ □□ □□ □□□□ □□ (RID)	: T4
□□□□ □□ □□ □□□□ □□ □□ (RID)	: TP1, TP29
RID □□□□ □□ □□(RID)	: LGBV
□□ □□(RID)	: 3
□□ □□ □□ □□ - □□(RID)	: W12
□□ □□ □□ □□ -□□, □□ □ □□(RID)	: CW13, CW31
□□ □□□	: CE8
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14.7. □□□□□□(IMO)□ □□ □□ □□ □□

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15.1. □□, □□ □ □□□ □□□□ □□□□ □□ □□□□ □□ □□ □□/□□

EU □□

REACH □□□ XVII (□□ □□)

EU restriction □□ (REACH Annex XVII)	
□□ □□	□□ □□
3(b)	DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS
3(c)	DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS

REACH □□□ XIV (□□ □□)

REACH □□□ XIV (□□ □□)□ □□□□ □□

REACH □□ □□ □□ (SVHC)

REACH □□ □□ □□□ □□□□ □□

PIC □□ (□□□□□□)

PIC □□□ □□□□ □□ (□□ EU 649/2012)

POP □□ (□□□ □□ □□□□)

POP □□□ □□□□ □□ (□□ EU 2019/1021)

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

□□□□ □□(428/2009)

Not listed on the COUNCIL REGULATION (EC) of dual-use items.

□□ □□□□ □□ (2019/1148)

□□□ □□□□ □□(□□ □□□□□ □□ □ □□□ □□ □□ EU 2019/1148)□ □□□ □□ □□□□ □□

□□ □□□□ □□ (273/2004)

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Ordinance on Flammable Liquids (VbF) : □□□□ □□.

□□

VOC ordinance (ChemVOCFarbV) :

DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

Employment restrictions	: □□ □□ □□□ (MuSchG) □□ □□ □□. □□ □□□ □□□ (JArbSchG) □□ □□ □□.
WGK	: WGK 1, □□ □□ □□ □□ (Classification according to AwSV; ID □□ 3344).
□□ □□ □□(12. BImSchV)	: □□ □□ □□(12. BImSchV) □□ □□ □□
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SZW-lijst van kankerverwekkende stoffen	: □□□ □□□□ □□□□□.
SZW-lijst van mutagene stoffen	: □□□ □□□□ □□□□□.
SZW-lijst van reprotoxische stoffen – Borstvoeding	: □□□ □□□□ □□□□□.
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: □□□ □□□□ □□□□□.
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: □□□ □□□□ □□□□□.
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□□□ □□ □□	: Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225). Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797). The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended). Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923). Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154). Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended). The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488) Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended). Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141). ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)

15.2. □□ □□ □□□ □□

No chemical safety assessment has been carried out

□□ 16: □ □□ □□□□

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ACGIH	American Conference of Government Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	□□ □□ □
BOD	Biochemical oxygen demand (BOD)
CAS □□	□□□□ □□ □□ □□(CAS)
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

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COD	□□□ □□ □□□
CSA	□□ □□ □□□ □□
DMEL	Derived Minimal Effect level
DNEL	□□ □□□ □□
EC □□	□□ □□□ □□
EC50	Median effective concentration
ED	□□□ □□□□
EN	□□ □□
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	□□□ □□ □□
OSHA	Occupational Safety & Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	□□ □□□ □□
PPE	□□ □□□
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	□□□□□□□□
STP	Sewage treatment plant
TF	□□□ □□
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
COV	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	□□ □□ □□□

DIETHYL ETHOXYMETHYLENEMALONATE FOR SYNTHESIS

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

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H302	□□□ □□□.
H315	□□□ □□□ □□□.
H317	□□□□□ □□ □□□ □□□ □ □□.
H319	□□ □□ □□□ □□□.
H410	□□□ □□□ □□ □□□□□□ □□ □□□.

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