



DAMLES DCE-PLUS

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 08/10/2021 Revision date: 09/10/2021 Supersedes version of: 20/04/2016 Version: 1.0

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

1.1. Product identifier

Product form : Substance
Substance name : DAMLES DCE-PLUS
REACH registration No : 01-2119539586-27
Product code : V207

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

1.2.1. Relevant identified uses

Intended for general public
Industrial/Professional use spec : Professional use.
Use of the substance/mixture : Fuel additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Comercial Química Massó, S.A.
C/Viladomat, 321, 5º
08029 Barcelona - SPAIN
T +34 934 952 500 - F +34 934 952 502
msds.support@cqmasso.com

1.4. Emergency telephone number

Emergency number : 704 100 087 (España)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 4	H312
Acute toxicity (inhalation:dust,mist) Category 4	H332
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

GHS09

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.
H411 - Toxic to aquatic life with long lasting effects.



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Precautionary statements (CLP)	: P261 - Avoid breathing vapours, spray, mist, fume. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear protective clothing. P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of water. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
EUH-statements	: EUH066 - Repeated exposure may cause skin dryness or cracking. EUH044 - Risk of explosion if heated under confinement.
Extra phrases	: Not ingest.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : DAMLES DCE-PLUS

Name	Product identifier	%
2-ethylhexyl nitrate	(CAS-No.) 27247-96-7 (EC-No.) 248-363-6 (REACH-no) 01-2119539586-27	100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Allow affected person to breathe fresh air. Allow the victim to rest. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Immediately call a POISON CENTER/doctor. Specific measures (see supplemental first aid instruction on this label). Wash with plenty of water/... Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor if you feel unwell.

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

Symptoms/effects	: Dilation of the blood vessels.
Symptoms/effects after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.
Symptoms/effects after skin contact	: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.



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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Explosion hazard : Vapours may form flammable and explosive mixture with air.
Hazardous decomposition products in case of fire : Nitric oxide/nitrogen dioxide. Carbon monoxide. Carbon dioxide.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.
Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Use only outdoors or in a well-ventilated area.
Handling temperature : ≤ 60 °C
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products : Strong bases. Strong acids.



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Incompatible materials : Sources of ignition. Direct sunlight.
Storage temperature : $\approx 40^{\circ}\text{C}$

7.3. Specific end use(s)

See Heading 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

2-ethylhexyl nitrate (27247-96-7)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	$\approx 1 \text{ mg/kg bodyweight/day}$
Long-term - local effects, dermal	$\approx 44 \text{ mg/kg bodyweight/day}$
Long-term - systemic effects, inhalation	$\geq 0,35 \text{ mg/m}^3$
PNEC (Water)	
PNEC aqua (freshwater)	$\approx 0,8 \text{ }\mu\text{g/L}$
PNEC aqua (marine water)	$\approx 0,8 \text{ mg/l}$
PNEC (Sediment)	
PNEC sediment (freshwater)	$\approx 0,00074 \text{ mg/kg dwt}$
PNEC (Soil)	
PNEC soil	$\approx 0,000191 \text{ mg/kg dwt}$

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

8.2.2.1. Eye and face protection

Eye protection:
Protection glasses universal mount (EN 166)

8.2.2.2. Skin protection



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Skin and body protection:

Body protection depending on activity and possible exposure, eg, suit resistant protection chemicals type 6 (according to EN 13688 EN 13034 + A1)

Hand protection:

The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to :Other chemical wich may be handled, physical requirements (cut/puncture protection,dexterity, thermal protection), as well as the instructions/specifications provided by the gloves supplier.

Other skin protection

Materials for protective clothing:

Wearing clothing of partial protection against splashes Type 6 [PB] (EN 13034)

8.2.2.3. Respiratory protection

Respiratory protection:

Mask with filter against organic gases and vapors as type A (EN14387)

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Yellow.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: ≈ -50 °C
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: ≈ 81 °C
Auto-ignition temperature	: ≈ 215 °C
Decomposition temperature	: ≈ 210 °C
SADT	: ≈ 95 °C
pH	: Not available
Viscosity, kinematic	: ≈ 1,78 mm ² /s
Viscosity, dynamic	: ≈ 1,7 mPa·s
Solubility	: insoluble in water. Soluble in organic solvents.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: ≈ 27 Pa
Vapour pressure at 50 °C	: Not available
Density	: ≈ 0,962 g/ml
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable



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Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Heating may cause an explosion. In use may form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Heating may cause an explosion. Beyond 100, risk of self-accelerating exothermic decomposition, resulting in an increase rapid temperature and pressure can cause an air blast (explosion container screening of inert and active materials, fire the product, emissions and toxic) smoke.

10.4. Conditions to avoid

Direct sunlight. High temperature. Overheating.

10.5. Incompatible materials

Strong acids. Strong bases. Reducing agents. Oxidizing agent. Natural rubber. Synthetic rubber.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Harmful in contact with skin.
Acute toxicity (inhalation)	: Harmful if inhaled.

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LC50 Inhalation - Rat	> 4,6 mg/l/4h
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2-ethylhexyl nitrate (27247-96-7)

LD50 oral rat	> 9640 mg/kg
LD50 dermal	> 4820 mg/kg
LC50 Inhalation - Rat	> 4,6 mg/l/4h



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Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

2-ethylhexyl nitrate (27247-96-7)	
NOAEL (oral, rat)	20 – 100 mg/kg bodyweight

STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

DAMLES DCE-PLUS	
Viscosity, kinematic	≈ 1,78 mm ² /s

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2 Other information

Potential adverse human health effects and symptoms : Harmful if swallowed, Harmful in contact with skin, Harmful if inhaled.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	: Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.

2-ethylhexyl nitrate (27247-96-7)	
LC50 - Fish [1]	≈ 1,88 mg/l
NOEC chronic fish	≈ 1,42 mg/l

12.2. Persistence and degradability

DAMLES DCE-PLUS	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

DAMLES DCE-PLUS	
Bioaccumulative potential	Not established.

2-ethylhexyl nitrate (27247-96-7)	
BCF - Fish [1]	< 2000 mg/kg



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Partition coefficient n-octanol/water (Log Kow) ≈ 3623

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR) : UN 3082

UN-No. (IMDG) : UN 3082

UN-No. (IATA) : UN 3082

14.2. UN proper shipping name

Proper Shipping Name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-ethylhexyl nitrate)

Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-ethylhexyl nitrate)

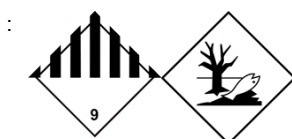
Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s. (2-ethylhexyl nitrate)

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 9

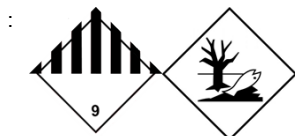
Danger labels (ADR) : 9



IMDG

Transport hazard class(es) (IMDG) : 9

Danger labels (IMDG) : 9



IATA

Transport hazard class(es) (IATA) : 9
 Danger labels (IATA) : 9



14.4. Packing group

Packing group (ADR) : III
 Packing group (IMDG) : III
 Packing group (IATA) : III

14.5. Environmental hazards

Dangerous for the environment : Yes
 Marine pollutant : Yes
 Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M6
 Special provisions (ADR) : 274, 335, 375, 601
 Limited quantities (ADR) : 5L
 Excepted quantities (ADR) : E1
 Packing instructions (ADR) : P001, IBC03, LP01, R001
 Special packing provisions (ADR) : PP1
 Mixed packing provisions (ADR) : MP19
 Portable tank and bulk container instructions (ADR) : T4
 Portable tank and bulk container special provisions (ADR) : TP1, TP29
 Tank code (ADR) : LGBV
 Vehicle for tank carriage : AT
 Transport category (ADR) : 3
 Special provisions for carriage - Packages (ADR) : V12
 Special provisions for carriage - Loading, unloading and handling (ADR) : CV13
 Hazard identification number (Kemler No.) : 90
 Orange plates :



Tunnel restriction code (ADR) : -
 EAC code : •3Z

Transport by sea

Special provisions (IMDG) : 274, 335, 969
 Limited quantities (IMDG) : 5 L
 Excepted quantities (IMDG) : E1
 Packing instructions (IMDG) : LP01, P001
 Special packing provisions (IMDG) : PP1
 IBC packing instructions (IMDG) : IBC03
 Tank instructions (IMDG) : T4
 Tank special provisions (IMDG) : TP1, TP29



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EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-F
Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L
Special provisions (IATA) : A97, A158, A197, A215
ERG code (IATA) : 9L

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

DAMLES DCE-PLUS is not on the REACH Candidate List

DAMLES DCE-PLUS is not on the REACH Annex XIV List

DAMLES DCE-PLUS is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

DAMLES DCE-PLUS is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Ensure all national/local regulations are observed.

Germany

Water hazard class (WGK) : Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Danish National Regulations : Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out



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SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
	Issue date	Modified	
3	Composition/information on ingredients	Modified	

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Training advice : workers must have risk-specific training.

Other information : None.

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.
EUH044	Risk of explosion if heated under confinement.
EUH066	Repeated exposure may cause skin dryness or cracking.

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