

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**
**1.1. Product identifier**

Product name : DANEVA  
 Product code : FH-067- Mesotrione 100g/L SC

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

Main use category : Professional use  
 Use of the substance/mixture : Herbicide

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

Rotam Europe Ltd  
 Hamilton House, Mabledon Place  
 WC1H 9BB London  
 T +44 020 7953 0447  
[msds@rotam.com](mailto:msds@rotam.com)

**1.4. Emergency telephone number**

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	NHS Direct (England and Wales)		111	
United Kingdom	NHS 24 (Scotland)		111	
United Kingdom	NHS 24 (Scotland)		111	
United Kingdom	NHS Direct (England and Wales)		111	

**SECTION 2: Hazards identification**
**2.1. Classification of the substance or mixture**
**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Eye Dam. 1 H318  
 Aquatic Acute 1 H400  
 Aquatic Chronic 1 H410

Full text of H-phrases: 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) :



GHS05

GHS09

Signal word (CLP) : Danger  
 Hazard statements (CLP) : H318 - Causes serious eye damage  
 H410 - Very toxic to aquatic life with long lasting effects  
 Precautionary statements (CLP) : P273 - Avoid release to the environment  
 P280 - Wear protective gloves, protective clothing, eye protection  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P310 - Immediately call a POISON CENTER or doctor/physician  
 P391 - Collect spillage  
 P501 - Dispose of contents/container in accordance with international regulations  
 EUH phrases : EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

**2.3. Other hazards**

No additional information available

**SECTION 3: Composition/information on ingredients****3.1. Substance**

Not applicable

**3.2. Mixture**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Alcohols, C9-11-iso-, C10-rich, ethoxylated	(CAS No) 78330-20-8	10 - 30	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
CITRIC ACID	(CAS No) 77-92-9 (EC no) 201-069-1	5 - 10	Eye Irrit. 2, H319
mesotrione (ISO), 2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione	(CAS No) 104206-82-8 (EC index no) 609-064-00-X	9.1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
octan-1-ol	(CAS No) 111-87-5 (EC no) 203-917-6	5 - 10	Eye Irrit. 2, H319 Aquatic Chronic 3, H412

Full text of H-phrases: see section 16

**SECTION 4: First aid measures****4.1. Description of first aid measures**

- First-aid measures general : In case of persisting adverse effects, consult a physician. Change contaminated, saturated clothing. Poisonous symptoms can first be observed after several hours, therefore medical observation for at least 48 hours is necessary.
- First-aid measures after inhalation : Remove affected person from the immediate area. Ensure supply of fresh air.
- First-aid measures after skin contact : In case of contact with skin wash off with water.
- First-aid measures after eye contact : Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.
- First-aid measures after ingestion : Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting.

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

No additional information available

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

No additional information available

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

- Suitable extinguishing media : Foam. Carbon dioxide. Extinguishing powder. Water spray jet
- Unsuitable extinguishing media : High power water jet.

**5.2. Special hazards arising from the substance or mixture**

- Explosion hazard : The product is not explosive.
- Hazardous decomposition products in case of fire : Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO). Sulphur oxides. Nitrogen oxides (NO<sub>x</sub>)

**5.3. Advice for firefighters**

Use self-contained breathing apparatus. Run-off water from fire fighting must not be discharged into drains or enter surface water. Wear protective clothing.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

- General measures : Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE).

**6.1.1. For non-emergency personnel**

- Protective equipment : Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Ensure adequate ventilation. Keep away sources of ignition.
- Emergency procedures : Evacuate unnecessary personnel.

**6.1.2. For emergency responders**

- Protective equipment : Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE).

**6.2. Environmental precautions**

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

**6.3. Methods and material for containment and cleaning up**

Methods for cleaning up : Take up with absorbent material (e.g., sand, kieselguhr, universal binder). When picked up, treat material as prescribed under heading "Disposal considerations".

**6.4. Reference to other sections**

Information regarding safe handling, see chapter 7. Information regarding personal protective measures, see chapter 8. Information regarding waste disposal, see chapter 13.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Precautions for safe handling : Provide good ventilation of working area (local exhaust ventilation, if necessary). Avoid eye, skin and clothing contact.

Hygiene measures : Do not eat, drink or smoke during work time. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and after work. Provide eye wash fountain in work area. Avoid product contact with skin, eyes and clothing; Remove soiled or soaked clothing immediately. Do not inhale vapours.

: Take precautionary measures against static charges. Keep away from sources of heat and ignition

**7.2. Conditions for safe storage, including any incompatibilities**

Storage conditions : Keep the container tightly closed and in a cool, well-ventilated place.

Incompatible products : Oxidizing agents.

Incompatible materials : Sources of ignition. Heat sources.

**7.3. Specific end use(s)**

No additional information available

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

No additional information available

**8.2. Exposure controls**

Hand protection : In case of intensive contact, wear protective gloves (EN 374). Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Eye protection : Tightly fitting safety glasses (EN 166).

Skin and body protection : Wear Chemical-resistant work clothes.

Respiratory protection : If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

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

Physical state : Liquid

Colour : Beige.

Odour : characteristic.

Odour threshold : No data available

pH : 2,8 (CIPAC MT 75.3)

Relative evaporation rate (butylacetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : > 400 °C (OPPTS 830.6315)

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapour pressure : No data available

Relative vapour density at 20 °C : No data available

Relative density : No data available

Density : 1,1 g/cm<sup>3</sup> at 20°C (OECD 109)

Solubility : No data available

Log Pow	: 1,49 ; Substance Mesotrione CAS n°104206-82-8 (Source: Toxnet (Calculation))
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive. (EEC A.14)
Oxidising properties	: Not oxidising (EEC A.17)
Explosive limits	: No data available

**9.2. Other information**

No additional information available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No additional information available.

**10.2. Chemical stability**

Stable under recommended storage and handling conditions (See section 7).

**10.3. Possibility of hazardous reactions**

Not established.

**10.4. Conditions to avoid**

Heat. Naked flames and other ignition sources.

**10.5. Incompatible materials**

Oxidizing agents.

**10.6. Hazardous decomposition products**

None if handled according to intended use.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

<b>DANEVA</b>	
LD50 oral rat	> 5000 mg/kg ;Substance Mesotrione (CAS n°104206-82-8), (OECD 423)
LD50 dermal rat	> 2000 mg/kg ;Substance Mesotrione (CAS n°104206-82-8), (OECD 402)
LC50 inhalation rat (mg/l)	> 5,05 mg/l/4h ;Substance Mesotrione (CAS n°104206-82-8), (OECD 403)
ATE (mixture) CLP	2018.4 mg/kg bodyweight

Skin corrosion/irritation	: Evaluation: Non irritant Species : Human Skin Model Method: OECD 439
Serious eye damage/irritation	: Evaluation: Corrosive Species : in vitro Method: BCOP
Respiratory or skin sensitisation	: Evaluation: Non-sensitizing Species : Guinea pig Method: OECD 406
Germ cell mutagenicity	: Evaluation: Based on available data, the classification criteria are not met Species : Salmonella typhimurium Method: OECD 471 Type of examination: Bacterial Reverse Mutation Test
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

**SECTION 12: Ecological information****12.1. Toxicity**

<b>DANEVA</b>	
LC50 fishes 1	34,8 mg/l ;Oncorhynchus mykiss, (OECD 203)
EC50 Daphnia 1	91,4 mg/l ;Daphnia magna, (OECD 202)
ErC50 (algae)	23,3 mg/l ; Navicula pelliculosa, (OECD 201)

DANEVA	
NOEC chronic algae	0,0191 mg/l ; Lemna minor, (OECD 221)

**12.2. Persistence and degradability**

No additional information available

**12.3. Bioaccumulative potential**

DANEVA	
Log Pow	1,49 ; Substance Mesotrione CAS n°104206-82-8 (Source: Toxnet (Calculation))

**12.4. Mobility in soil**

No additional information available

**12.5. Results of PBT and vPvB assessment**

No additional information available

**12.6. Other adverse effects**

No additional information available

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Avoid release to the environment.

**SECTION 14: Transport information**

In accordance with ADN / ADR / IATA / IMDG / RID

**14.1. UN number**

UN-No. (ADR) : 3082  
UN-No. (IMDG) : 3082  
UN-No. (IATA) : 3082  
UN-No. (ADN) : 3082  
UN-No. (RID) : 3082

**14.2. UN proper shipping name**

Proper Shipping Name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s.  
Proper Shipping Name (ADN) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
Proper Shipping Name (RID) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
Transport document description (ADR) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (mesotrione), 9, III, (E)  
Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (mesotrione), 9, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS  
Transport document description (IATA) : UN 3082 Environmentally hazardous substance, liquid, n.o.s. (mesotrione), 9, III, ENVIRONMENTALLY HAZARDOUS  
Transport document description (ADN) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (mesotrione), 9, III, ENVIRONMENTALLY HAZARDOUS  
Transport document description (RID) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (mesotrione) (mesotrione), 9, III, ENVIRONMENTALLY HAZARDOUS

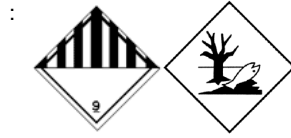
**14.3. Transport hazard class(es)****ADR**

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

**IMDG**

Transport hazard class(es) (IMDG) : 9

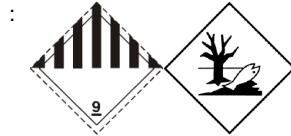
Danger labels (IMDG) : 9



### IATA

Transport hazard class(es) (IATA) : 9

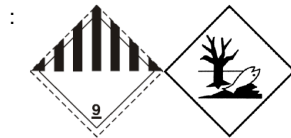
Hazard labels (IATA) : 9



### ADN

Transport hazard class(es) (ADN) : 9

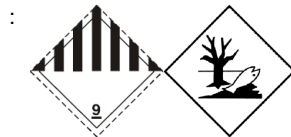
Danger labels (ADN) : 9



### RID

Transport hazard class(es) (RID) : 9

Danger labels (RID) : 9



#### 14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : 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, 601, 375

Limited quantities (ADR) : 5I

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) : E  
EAC code : •3Z

**- Transport by sea**

Special provisions (IMDG) : 274, 335, 969  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P001, LP01  
Special packing provisions (IMDG) : PP1  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T4  
Tank special provisions (IMDG) : TP2, TP29  
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  
ERG code (IATA) : 9L

**- Inland waterway transport**

Classification code (ADN) : M6  
Special provisions (ADN) : 274, 335, 375, 601  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP  
Number of blue cones/lights (ADN) : 0

**- Rail transport**

Classification code (RID) : M6  
Special provisions (RID) : 274, 335, 375, 601  
Limited quantities (RID) : 5L  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P001, IBC03, LP01, R001  
Special packing provisions (RID) : PP1  
Mixed packing provisions (RID) : MP19  
Portable tank and bulk container instructions (RID) : T4

Portable tank and bulk container special provisions (RID)	: TP1, TP29
Tank codes for RID tanks (RID)	: LGBV
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW31
Colis express (express parcels) (RID)	: CE8
Hazard identification number (RID)	: 90

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

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  
Contains no REACH candidate substance

**15.1.2. National regulations**

No additional information available

**15.2. Chemical safety assessment**

For this mixture a chemical safety assessment has not been carried out.

**SECTION 16: Other information**

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.

Full text of H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed
H318	Causes serious eye damage
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
EUH401	To avoid risks to human health and the environment, comply with the instructions for use

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SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*