

DUAL GOLD

Version 7.0 Revision Date: 13.05.2021 SDS Number: S1372228414 This version replaces all previous versions.

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

1.1 Product identifier

Trade name : DUAL GOLD
Design code : A9396G
Product Registration Number : PCS 04192
Unique Formula Identifier (UFI) : QR76-WPXY-P004-76HW

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

Use of the Substance/Mixture : Herbicide
Recommended restrictions on use : professional use

1.3 Details of the supplier of the safety data sheet

Company : Syngenta Ireland Limited
Block 6 Cleaboy Business Park, Old Kilmeaden Road,
Waterford
Ireland
Telephone : (051) 377203
Telefax : (051) 354748
E-mail address of person responsible for the SDS : cropsales.ie@syngenta.com

1.4 Emergency telephone number

Emergency telephone number : Syngenta +44 1484 538444
Poisons Information Centre of Ireland
Members of Public: +353 (1) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitisation, Sub-category 1B	H317: May cause an allergic skin reaction.
Short-term (acute) aquatic hazard,	H400: Very toxic to aquatic life.


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Category 1
Long-term (chronic) aquatic hazard,
Category 1 H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms : 

Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements : EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements : P102 Keep out of reach of children.
Prevention:
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.
Disposal:
P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.

Hazardous components which must be listed on the label:

S-metolachlor

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
S-metolachlor	87392-12-9 607-432-00-4	Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 70 - < 90
poly(oxy-1,2-ethanediyl), -[2,4,6-tris(1-phenylethyl)phenyl]- -hydroxy-	99734-09-5	Aquatic Chronic 3; H412	>= 2.5 - < 10
calcium dodecylbenzene sulphonate	26264-06-2 247-557-8 01-2119560592-37	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 3 - < 10
hydrocarbons, C10-C13, aromatics, <1% naphthalene	Not Assigned 922-153-0 01-2119451097-39	Asp. Tox. 1; H304 Aquatic Chronic 2; H411 EUH066	>= 2.5 - < 10
2-methylpropan-1-ol	78-83-1 201-148-0 603-108-00-1 01-2119484609-23	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system)	>= 1 - < 3

For explanation of abbreviations see section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.
- If inhaled : Move the victim to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or poison control centre immediately.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- If swallowed : If swallowed, seek medical advice immediately and show this container or label.
Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Aspiration may cause pulmonary oedema and pneumonitis.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : There is no specific antidote available.
Treat symptomatically.
Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.
-

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

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5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health.
Flash back possible over considerable distance.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear full protective clothing and self-contained breathing apparatus.
Further information : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Refer to protective measures listed in sections 7 and 8.
Keep people away from and upwind of spill/leak.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Remove all sources of ignition.
Pay attention to flashback.

6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Clean contaminated surface thoroughly.
Clean with detergents. Avoid solvents.
Retain and dispose of contaminated wash water.

6.4 Reference to other sections

For disposal considerations see section 13., Refer to protective measures listed in sections 7 and 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.
When using do not eat, drink or smoke.

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Use only in an area containing flame proof equipment.
Take precautionary measures against static discharges.
For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from combustible material. Keep in an area equipped with sprinklers. Keep away from food, drink and animal feedingstuffs. No smoking.

7.3 Specific end use(s)

Specific use(s) : For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
S-metolachlor	87392-12-9	TWA	5 mg/m ³	Syngenta
hydrocarbons, C10-C13, aromatics, <1% naphthalene	Not Assigned	TWA	8 ppm 50 mg/m ³	Supplier
2-methylpropan-1-ol	78-83-1	OELV - 8 hrs (TWA)	50 ppm 150 mg/m ³	IE OEL
		OELV - 15 min (STEL)	75 ppm 225 mg/m ³	IE OEL

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
calcium dodecylbenzene sulphonate	Workers	Inhalation	Long-term systemic effects	52 mg/m ³
	Workers	Inhalation	Acute systemic effects	52 mg/m ³
	Workers	Inhalation	Long-term local effects	52 mg/m ³
	Workers	Inhalation	Acute local effects	52 mg/m ³
	Workers	Dermal	Long-term systemic effects	57.2 mg/kg
	Workers	Dermal	Acute systemic effects	80 mg/kg
	Workers	Dermal	Long-term local effects	1.57 mg/cm ²
2-methylpropan-1-ol	Workers	Dermal	Acute local effects	1.57 mg/cm ²
	Workers	Inhalation	Long-term systemic	310 mg/m ³

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			effects, Long-term local effects	
	Consumers	Inhalation	Long-term systemic effects, Long-term local effects	55 mg/m3
	Consumers	Oral	Long-term systemic effects, Long-term local effects	25 mg/kg
hydrocarbons, C10-C13, aromatics, <1% naphthalene	Workers	Inhalation	Long-term systemic effects	151 mg/m3
	Workers	Dermal	Long-term systemic effects	12.5 mg/kg
	Consumers	Inhalation	Long-term systemic effects	32 mg/m3
	Consumers	Dermal	Long-term systemic effects	7.5 mg/kg
	Consumers	Oral	Long-term systemic effects	7.5 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
calcium dodecylbenzene sulphonate	Fresh water	0.28 mg/l
	Marine water	0.458 mg/l
	Freshwater - intermittent	0.654 mg/l
	Sewage treatment plant	50 mg/l
	Fresh water sediment	27.5 mg/kg
2-methylpropan-1-ol	Marine sediment	2.75 mg/kg
	Fresh water	0.4 mg/l
	Sewage treatment plant	10 mg/l
	Soil	0.0699 mg/kg
	Marine sediment	0.152 mg/kg
	Fresh water sediment	1.52 mg/kg
	Marine water	0.04 mg/l

8.2 Exposure controls

Engineering measures

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

Maintain air concentrations below occupational exposure standards.

Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

Eye protection : Tightly fitting safety goggles
Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.
Equipment should conform to EN 166

Hand protection

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Material	:	Nitrile rubber
Break through time	:	> 480 min
Glove thickness	:	0.5 mm
Remarks	:	<p>Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.</p> <p>The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.</p>
Skin and body protection	:	<p>Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.</p> <p>Remove and wash contaminated clothing before re-use.</p> <p>Wear as appropriate: Impervious clothing</p>
Respiratory protection	:	<p>No personal respiratory protective equipment normally required.</p> <p>When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.</p>
Protective measures	:	<p>The use of technical measures should always have priority over the use of personal protective equipment.</p> <p>When selecting personal protective equipment, seek appropriate professional advice.</p>

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	light yellow to dark brown
Odour	:	No data available
Odour Threshold	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flammability	:	No data available

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Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	81 °C Method: Pensky-Martens closed cup
Auto-ignition temperature	:	415 °C
Decomposition temperature	:	No data available
Decomposition temperature	:	No data available
pH	:	4 - 8 Concentration: 1 % w/v
Viscosity	:	
Viscosity, dynamic	:	128 mPa.s (20 °C) 36.6 mPa.s (40 °C)
Viscosity, kinematic	:	No data available
Solubility(ies)	:	
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	No data available
Density	:	1.11 g/cm ³
Relative vapour density	:	No data available
Particle characteristics	:	
Particle size	:	No data available

9.2 Other information

Explosives	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Evaporation rate	:	No data available
Surface tension	:	32.1 mN/m, 1 %, 20 °C

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SECTION 10: Stability and reactivity

10.1 Reactivity

None reasonably foreseeable.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : No decomposition if used as directed.

10.5 Incompatible materials

Materials to avoid : None known.

10.6 Hazardous decomposition products

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11: Toxicological information

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

Information on likely routes of exposure : Ingestion
Inhalation
Skin contact
Eye contact

Acute toxicity

Product:

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.09 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Based on data from similar materials

Components:

S-metolachlor:

Acute oral toxicity : LD50 (Rat, male and female): 2,672 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.91 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

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Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

2-methylpropan-1-ol:

Acute oral toxicity : LD50 (Rat): 2,830 - 3,350 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 24.6 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 - 2,460 mg/kg

Skin corrosion/irritation

Product:

Species : Rabbit
Result : No skin irritation
Remarks : Based on data from similar materials

Components:

S-metolachlor:

Species : Rabbit
Result : No skin irritation

calcium dodecylbenzene sulphonate:

Result : Irritating to skin.

hydrocarbons, C10-C13, aromatics, <1% naphthalene:

Result : Repeated exposure may cause skin dryness or cracking.

2-methylpropan-1-ol:

Result : Irritating to skin.

Serious eye damage/eye irritation

Product:

Species : Rabbit
Result : Eye irritation
Remarks : Based on data from similar materials

Components:

S-metolachlor:

Species : Rabbit
Result : No eye irritation

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calcium dodecylbenzene sulphonate:

Result : Risk of serious damage to eyes.

2-methylpropan-1-ol:

Result : Risk of serious damage to eyes.

Respiratory or skin sensitisation

Product:

Test Type	:	Local lymph node assay (LLNA)
Species	:	Guinea pig
Result	:	The product is a skin sensitiser, sub-category 1B.

Components:

S-metolachlor:

Species : Guinea pig
Result : The product is a skin sensitiser, sub-category 1B.

2-methylpropan-1-ol:

Species : Guinea pig
Result : Did not cause sensitisation on laboratory animals.
Remarks : Information given is based on data obtained from similar substances.

Germ cell mutagenicity

Components:

S-metolachlor:

Germ cell mutagenicity-Assessment : Animal testing did not show any mutagenic effects.

poly(oxy-1,2-ethanediyl), -[2,4,6-tris(1-phenylethyl)phenyl]- -hydroxy-:

Germ cell mutagenicity-Assessment : In vitro tests did not show mutagenic effects

Carcinogenicity

Components:

S-metolachlor:

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Components:

S-metolachlor:

Reproductive toxicity - : Animal testing did not show any effects on fertility.

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Assessment

STOT - single exposure

Components:

2-methylpropan-1-ol:

Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

Repeated dose toxicity

Components:

S-metolachlor:

Remarks : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Components:

hydrocarbons, C10-C13, aromatics, <1% naphthalene:

May be fatal if swallowed and enters airways.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 8.8 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 28.1 mg/l
aquatic invertebrates : Exposure time: 48 h

Toxicity to algae/aquatic : ErC50 (Raphidocelis subcapitata (freshwater green alga)):
plants : 0.09 mg/l

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Exposure time: 96 h

EC10 (*Raphidocelis subcapitata* (freshwater green alga)): 0.034 mg/l

End point: Growth rate

Exposure time: 96 h

NOEC (*Raphidocelis subcapitata* (freshwater green alga)): 0.022 mg/l

End point: Growth rate

Exposure time: 96 h

ErC50 (*Lemna gibba* (gibbous duckweed)): 0.23 mg/l

Exposure time: 7 d

EC10 (*Lemna gibba* (gibbous duckweed)): 0.012 mg/l

End point: Growth rate

Exposure time: 7 d

NOEC (*Lemna gibba* (gibbous duckweed)): 0.0022 mg/l

End point: Growth rate

Exposure time: 7 d

Components:

S-metolachlor:

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 1.23 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Americamysis*): 1.4 mg/l
Exposure time: 96 h

Toxicity to algae/aquatic plants : ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 0.077 mg/l
Exposure time: 96 h

NOEC (*Raphidocelis subcapitata* (freshwater green alga)): 0.016 mg/l

End point: Growth rate

Exposure time: 96 h

EC50 (*Lemna gibba* (gibbous duckweed)): 0.023 mg/l

Exposure time: 14 d

NOEC (*Lemna gibba* (gibbous duckweed)): 0.0076 mg/l

Exposure time: 14 d

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC: 0.03 mg/l
Exposure time: 35 d
Species: *Pimephales promelas* (fathead minnow)

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.13 mg/l
Exposure time: 28 d
Species: Americamysis

M-Factor (Chronic aquatic toxicity) : 10

poly(oxy-1,2-ethanediyl), -[2,4,6-tris(1-phenylethyl)phenyl]- -hydroxy-:

Ecotoxicology Assessment

Acute aquatic toxicity : Harmful to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

calcium dodecylbenzene sulphonate:

Ecotoxicology Assessment

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

hydrocarbons, C10-C13, aromatics, <1% naphthalene:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 3.6 mg/l
Exposure time: 96 h
Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): 1.1 mg/l
Exposure time: 48 h
Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae/aquatic plants : EL50 (Raphidocelis subcapitata (freshwater green alga)): 7.9 mg/l
End point: Growth rate
Exposure time: 72 h
Remarks: Information given is based on data obtained from similar substances.

NOELR (Raphidocelis subcapitata (freshwater green alga)): 0.22 mg/l
End point: Growth rate
Exposure time: 72 h
Remarks: Information given is based on data obtained from similar substances.

Ecotoxicology Assessment

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

2-methylpropan-1-ol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 1,430 mg/l
Exposure time: 96 h

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): 1,100 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): 1,799 mg/l
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 20 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

12.2 Persistence and degradability

Components:

S-metolachlor:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 53 - 147 d
Remarks: Product is not persistent.

poly(oxy-1,2-ethanediyl), -[2,4,6-tris(1-phenylethyl)phenyl]- -hydroxy-:

Biodegradability : Result: Not readily biodegradable.

hydrocarbons, C10-C13, aromatics, <1% naphthalene:

Biodegradability : Result: Readily biodegradable.

2-methylpropan-1-ol:

Biodegradability : Result: Readily biodegradable.

12.3 Bioaccumulative potential

Components:

S-metolachlor:

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: 3.05 (25 °C)

12.4 Mobility in soil

Components:

S-metolachlor:

Distribution among environmental compartments : Remarks: Moderately mobile in soils

Stability in soil : Dissipation time: 12 - 46 d
Percentage dissipation: 50 % (DT50)
Remarks: Product is not persistent.

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12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

Components:

2-methylpropan-1-ol:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Product : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.
- Contaminated packaging : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.
- Waste Code : uncleaned packagings
15 01 10, packaging containing residues of or contaminated by hazardous substances

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SECTION 14: Transport information

14.1 UN number or ID number

ADN : UN 3082
ADR : UN 3082
RID : UN 3082
IMDG : UN 3082
IATA : UN 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(S-METOLACHLOR)
ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(S-METOLACHLOR)
RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(S-METOLACHLOR)
IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(S-METOLACHLOR)
IATA : Environmentally hazardous substance, liquid, n.o.s.
(S-METOLACHLOR)

14.3 Transport hazard class(es)

ADN : 9
ADR : 9
RID : 9
IMDG : 9
IATA : 9

14.4 Packing group

ADN
Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9
ADR
Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9
Tunnel restriction code : (-)

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RID

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

IMDG

Packing group : III
Labels : 9
EmS Code : F-A, S-F

IATA (Cargo)

Packing instruction (cargo aircraft) : 964
Packing instruction (LQ) : Y964
Packing group : III
Labels : Miscellaneous

IATA (Passenger)

Packing instruction (passenger aircraft) : 964
Packing instruction (LQ) : Y964
Packing group : III
Labels : Miscellaneous

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

IATA (Passenger)

Environmentally hazardous : yes

IATA (Cargo)

Environmentally hazardous : yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

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REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable
REACH - List of substances subject to authorisation (Annex XIV) : Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
E1	ENVIRONMENTAL HAZARDS	100 t	200 t

Other regulations:

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.
Use plant protection products safely. Always read the label and product information before use.
Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

SECTION 16: Other information

Full text of H-Statements

H226 : Flammable liquid and vapour.
H304 : May be fatal if swallowed and enters airways.
H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H318 : Causes serious eye damage.
H335 : May cause respiratory irritation.
H336 : May cause drowsiness or dizziness.
H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.
H411 : Toxic to aquatic life with long lasting effects.
H412 : Harmful to aquatic life with long lasting effects.
EUH066 : Repeated exposure may cause skin dryness or cracking.

Full text of other abbreviations

Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard
Asp. Tox. : Aspiration hazard
Eye Dam. : Serious eye damage
Flam. Liq. : Flammable liquids

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Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation
STOT SE : Specific target organ toxicity - single exposure
IE OEL : Ireland. List of Chemical Agents and Occupational Exposure Limit Values - Schedule 1
IE OEL / OELV - 8 hrs (TWA) : Occupational exposure limit value (8-hour reference period)
IE OEL / OELV - 15 min (STEL) : Occupational exposure limit value (15-minute reference period)

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; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Eye Irrit. 2 H319

Skin Sens. 1B H317

Aquatic Acute 1 H400

Aquatic Chronic 1 H410

Classification procedure:

Based on product data or assessment

Based on product data or assessment

Based on product data or assessment

Based on product data or assessment

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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