

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 and Regulation (EC) No. 453/2010



CHARDOL

Version 4.0

Revision Date 30.03.2016

Print Date 30.03.2016

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

1.1 Product identifier

Trade name : CHARDOL

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

Use of the Substance/Mixture : Herbicide

1.3 Details of the supplier of the safety data sheet

Company : Nufarm S.A.S
28 boulevard Zéphirin Camélinat
92230 Gennevilliers
Telephone : +330140855050
Telefax : +330147922545
E-mail address : FDS@fr.nufarm.com
Responsible/issuing person

1.4 Emergency telephone number

Nufarm S.A.S. : +33 1 40 85 51 15
National emergency telephone number : not available

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Serious eye damage/eye irritation, Category 1 H318: Causes serious eye damage.

Chronic aquatic toxicity, Category 2 H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms	:		
Signal word	:	Danger	
Hazard statements	:	H318 H411	Causes serious eye damage. Toxic to aquatic life with long lasting effects.
Precautionary statements	:	Prevention: P270 P280	Do not eat, drink or smoke when using this product. Wear protective gloves/ protective clothing/

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	Response:	eye protection/ face 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.
	P330	Rinse mouth.
	Disposal:	
	P501	Dispose of contents/containers through an authorized company for the collection and disposal of hazardous products

Additional Labelling:

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
EUH208 Contains, 2,4-D DMA Salt. May produce an allergic reaction,

2.3 Other hazards

A Chemical Safety Assessment is not required for this mixture.

2,4-D dimethylamine salt : 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).

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Soluble concentrate(SL)

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
2,4-D dimethylamine salt	2008-39-1 217-915-8	Acute Tox. 4; H302 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Chronic 2; H411	60 %
2,4-dichlorophenol	120-83-2 204-429-6	Acute Tox. 3; H311 Acute Tox. 4; H302 Skin Corr. 1B; H314 Aquatic Chronic 2; H411	0% - 0,2%

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For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash immediately affected parts with plenty of water and soap.
If symptoms persist, call a physician.
- In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes
and consult a physician.
- If swallowed : Clean mouth with water.
Do NOT induce vomiting.
If swallowed, seek medical advice immediately and show this
container or label.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Symptomatic treatment

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Water spray, Dry powder, Foam, Carbon dioxide (CO₂)
- Unsuitable extinguishing media : High volume water jet

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. Exposure to decomposition products may be a hazard to health.
- Hazardous combustion products : In the event of fire (COx) may be formed.

5.3 Advice for firefighters

- Special protective equipment for firefighters : Use personal protective equipment. In the event of fire, wear self-contained breathing apparatus.

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Further information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Refer to protective measures listed in section 8.

6.2 Environmental precautions

Environmental precautions : 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 materials for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, universal binder ...).
Pick up and transfer to properly labelled containers.

Never return spills in original containers for re-use.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8.

Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep out of reach of children. Store in original container. Keep away from freezing. Keep in a cool, well-ventilated place.

Advice on common storage : Keep away from food, drink and animal feeding stuffs.

7.3 Specific end use(s)

Specific use(s) : none

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

If the sub-section is blank, no value is applicable.

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses

Hand protection

Material : Nitrile gloves

Skin and body protection : Long sleeved clothing

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : limpid

Colour : light yellow

Odour : mild, amine like

Odour Threshold : No data available

pH : 8 - 10, Method: CIPAC MT75.1

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : > 100 °C

Evaporation rate : Not applicable

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Flammability (solid, gas)	: Not applicable
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: Not applicable
Relative density	: No data available
Density	: ca. 1,2 g/cm ³ Method: OECD Test Guideline 109
Water solubility	: completely miscible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: 23,4 mPa.s at 20 °C Method: OECD Test Guideline 114
Viscosity, kinematic	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

9.2 Other information

Surface tension : 63 mN/m, 20 °C, EEC A5

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

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 stored and applied as directed.

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10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

Hazardous decomposition products : No data available

Other information : No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product

Acute oral toxicity : LD50 Rat: > 2.000 mg/kg

Acute inhalation toxicity : LC50 Rat: > 7,41 mg/l

Acute dermal toxicity : LD50 Rat: > 2.000 mg/kg

Skin corrosion/irritation : Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation : Species: Rabbit
Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation : Result: Did not cause sensitization.

Genotoxicity in vitro : No data available

Carcinogenicity : Not carcinogenic

STOT - single exposure : No data available

STOT - repeated exposure : No data available

Further information : Mutagenicity
Based on available data, the classification criteria are not met.

Components:

2,4-D dimethylamine salt :

Acute oral toxicity : LD50 Rat: 425 - 764 mg/kg
Test substance: (2,4-D)

Acute inhalation toxicity : LC50 Rat: > 1,79 mg/l

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	Exposure time: 4 h Test substance: (2,4-D)
Acute dermal toxicity	: LD50 Rat: > 2.000 mg/kg Test substance: (2,4-D)
Skin corrosion/irritation	: Species: Rabbit Result: No skin irritation Test substance:(2,4-D)
Serious eye damage/eye irritation	: Species: Rabbit Result: Severe eye irritation Test substance: (2,4-D)
Respiratory or skin sensitisation	: Species: Guinea pig Result: Did not cause sensitization. Test substance: (2,4-D)
Carcinogenicity	: Not carcinogenic
2,4-dichlorophenol : Acute oral toxicity	: Acute toxicity estimate : 500 mg/kg Method: Converted acute toxicity point estimate
Acute dermal toxicity	: Acute toxicity estimate : 300 mg/kg Method: Converted acute toxicity point estimate

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish	: LC50 : > 59,9 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h
Toxicity to algae	: ErC50 : > 115,53 mg/l Exposure time: 96 h Test substance: (2,4-D DMA) ErC50 (Lemna gibba (Duckweed)): 2,7 mg/l Exposure time: 96 h Test substance: By analogy to similar product

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ErC50 (*Myrophyllium spicatum*): 0,715 mg/l

NOEC (*Myrophyllium spicatum*): 0,0977 mg/l

Toxicity to fish (Chronic toxicity) : NOEC: 63,4 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 79 mg/l
Species: *Daphnia* (water flea)
Toxicity to terrestrial organisms : LD50: > 100 µg/bee, contact
Exposure duration: 3 d
Species: *Apis mellifera* (bees)
Test substance: (2,4-D DMA)

LD50: > 100 µg/bee, oral
Exposure duration: 3 d
Species: *Apis mellifera* (bees)

Components:

2,4-D dimethylamine salt :

Toxicity to fish : LC50 (*Pimephales promelas* (fathead minnow)): 100 mg/l
Exposure time: 96 h
Test substance: (2,4-D)

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 100 mg/l
Exposure time: 48 h
Test substance: (2,4-D)

Toxicity to algae : ErC50 (*Selenastrum capricornutum* (green algae)): 24,2 mg/l
Exposure time: 96 h
Test substance: (2,4-D)

ErC50 (*Lemna gibba* (gibbous duckweed)): 0,58 mg/l
Exposure time: 14 d
Test substance: (2,4-D)

Toxicity to fish (Chronic toxicity) : NOEC: 63,4 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 46,2 mg/l
Species: *Daphnia magna* (Water flea)

12.2 Persistence and degradability

Product:

Biodegradability : Test substance: (2,4-D)
Readily biodegradable, according to appropriate OECD test.

Physico-chemical removability : No data available

Stability in soil : Not expected to adsorb on soil.

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Components:

2,4-D dimethylamine salt :

Biodegradability : Test substance: (2,4-D)
Readily biodegradable, according to appropriate OECD test.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Test substance: (2,4-D)
No bioaccumulation is to be expected (log Pow <= 4).

Components:

2,4-D dimethylamine salt :

Bioaccumulation : Bioconcentration factor (BCF): 10
Test substance: (2,4-D)

12.4 Mobility in soil

Product:

Mobility : No data available
Surface tension : 63 mN/m at 20 °C
EEC A5

12.5 Results of PBT and vPvB assessment

Product:

Assessment : A Chemical Safety Assessment is not required for this mixture.

Components:

2,4-D dimethylamine salt :

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 Other adverse effects

Product:

Additional ecological information : No other known adverse effects on the environment

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not empty into drains.
Dispose of in accordance with local regulations.

Contaminated packaging : Do not re-use empty containers.
Dispose of empty packages through the specific collection services.

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SECTION 14: Transport information

14.1 UN number

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.2 Proper shipping name

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.3 Transport hazard class

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.4 Packing group

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.5 Environmental hazards

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.6 Special precautions for user

For personal protection see section 8.

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

Remarks : Not applicable

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SECTION 15: Regulatory information

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

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this mixture.

SECTION 16: Other information

Acute Tox.	Acute toxicity
Aquatic Chronic	Chronic aquatic toxicity
Eye Dam.	Serious eye damage

Full text of H-Statements

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.

Further information

Other information : Please note the convention used in this document for decimal points and commas for numerical values is as demonstrated by the example: 2,000 is two (to 3 decimal places) and not two thousand, whilst 1.000 is one thousand and not 1 (to 3 decimal places)

This version replaces all previous versions.

Alterations are indicated in the left hand margin by: II

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