



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Duplosan Super

Version 1 (Ireland)

Issuing date: 2014/11/14

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name : **Duplosan Super**

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

Use : Herbicide

1.3. Details of the supplier of the safety data sheet

Nufarm UK Limited
Wyke Lane
Wyke
Bradford
West Yorkshire BD12 9EJ
United Kingdom
Telephone: +44 (0)1274 691234
Telefax: +44 (0)1274 691176
E-mail address: infouk@uk.nufarm.com

1.4. Emergency telephone number

+44 (0)1274 696603

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

EEC/99/45 :	Xn	R22 - Harmful if swallowed.
	Xi	R41 - Risk of serious damage to eyes.
	Xi	R43 - May cause sensitization by skin contact.
	N	R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
EG_1272/08 :	AcuteTox.4	H302 - Harmful if swallowed.
	SkinSens.1	H317 - May cause an allergic skin reaction.
	EyeDam.1	H318 - Causes serious eye damage.

2.2. Label elements

according directive 1999/45/EG

Pictogram:



Xn



N

- R22 - Harmful if swallowed.
 R41 - Risk of serious damage to eyes.
 R43 - May cause sensitization by skin contact.
 R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- S 2 - Keep out of the reach of children.
 S13 - Keep away from food, drink and animal feedingstuffs.
 S24/25 - Avoid contact with skin and eyes.
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S37/39 - Wear suitable gloves and eye/face protection.
 S46 - If swallowed, seek medical advice immediately and show this container or label.
 S35 - This material and its container must be disposed of in a safe way.
 S57 - Use appropriate container to avoid environmental contamination.

Pictogram:



GHS07



GHS05

Signal word: Danger

- H302 - Harmful if swallowed.
 H318 - Causes serious eye damage.
 H317 - May cause an allergic skin reaction.
 EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.
- P261 - Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
 P305 + P351 + - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Duplosan Super

Version 1 (Ireland)

Issuing date: 2014/11/14

P338

P501

- Dispose of contents/container to a licensed waste disposal contractor or collection site except for empty triple rinsed containers which can be disposed of as non-hazardous waste

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Aqueous solution of the dimethylammonium salt
Dichlorprop-P 310g/l, MCPA 160g/l & Mecoprop-P 130 g/l

3.2. Mixtures

Components:

dichlorprop-P

CAS-No.: 15165-67-0
EINECS-No. / ELINCS No.: 403-980-1
REACH No.:
Concentration: 26.7 % (w/w)

Classification:

EG_1272/08 : AcuteTox.4 H302 - Harmful if swallowed.
SkinIrrit.2 H315 - Causes skin irritation.
EyeDam.1 H318 - Causes serious eye damage.
SkinSens.1 H317 - May cause an allergic skin reaction.
EEC/67/548 : Xn R22 - Harmful if swallowed.
Xi R38 - Irritating to skin.
Xi R41 - Risk of serious damage to eyes.
R43 - May cause sensitization by skin contact.

MCPA

CAS-No.: 94-74-6
EINECS-No. / ELINCS No.: 202-360-6
REACH No.:
Concentration: 13.8 % (w/w)

Classification:

EG_1272/08 : AcuteTox.4 H302 - Harmful if swallowed.
SkinIrrit.2 H315 - Causes skin irritation.
EyeDam.1 H318 - Causes serious eye damage.
AquaticAcute1 H400 - Very toxic to aquatic life.
AquaticChronic1 H410 - Very toxic to aquatic life with long lasting effects.
EEC/67/548 : Xn R22 - Harmful if swallowed.
Xi R38 - Irritating to skin.
Xi R41 - Risk of serious damage to eyes.
N R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Duplosan Super

Version 1 (Ireland)

Issuing date: 2014/11/14

mecoprop-P

CAS-No.: 16484-77-8
EINECS-No. / ELINCS No.: 240-539-0
REACH No.: 01-2119447100-56
Concentration: 11.2 % (w/w)

Classification:

EG_1272/08 : AcuteTox.4 H302 - Harmful if swallowed.
EyeDam.1 H318 - Causes serious eye damage.
AquaticChronic2 H411 - Toxic to aquatic life with long lasting effects.
EEC/67/548 : Xn R22 - Harmful if swallowed.
Xi R41 - Risk of serious damage to eyes.
N R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2,4-Dichlorophenol

CAS-No.: 120-83-2
EINECS-No. / ELINCS No.: 204-429-6
REACH No.: 01-2119513326-47
Concentration: 0.1 % (w/w)

Classification:

EG_1272/08 : AcuteTox.3 H311 - Toxic in contact with skin.
AcuteTox.4 H302 - Harmful if swallowed.
SkinCorr.1B H314 - Causes severe skin burns and eye damage.
AquaticChronic2 H411 - Toxic to aquatic life with long lasting effects.
EEC/67/548 : T R24 - Toxic in contact with skin.
Xn R22 - Harmful if swallowed.
C R34 - Causes burns.
N R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4-chloro-o-cresol

CAS-No.: 1570-64-5
EINECS-No. / ELINCS No.: 216-381-3
REACH No.: 01-2119455846-26
Concentration: 0.1 % (w/w)

Classification:

EG_1272/08 : AcuteTox.3 H331 - Toxic if inhaled.
SkinCorr.1A H314 - Causes severe skin burns and eye damage.
AquaticAcute1 H400 - Very toxic to aquatic life.
EEC/67/548 : T R23 - Toxic by inhalation.
C R35 - Causes severe burns.
N R50 - Very toxic to aquatic organisms.

dimethylamine

CAS-No.: 124-40-3
EINECS-No. / ELINCS No.: 204-697-4
REACH No.: 01-2119475495-27
Concentration: 10% - 15% (w/w)

Classification:

EG_1272/08 : Flam.Gas1 H220 - Extremely flammable gas.
AcuteTox.4 H332 - Harmful if inhaled.
STOT_SE3 H335 - May cause respiratory irritation.
SkinIrrit.2 H315 - Causes skin irritation.
EyeDam.1 H318 - Causes serious eye damage.
Press.Gas - - -
EEC/67/548 : F+ R12 - Extremely flammable.
Xn R20 - Harmful by inhalation.
Xi R37/38 - Irritating to respiratory system and skin.
Xi R41 - Risk of serious damage to eyes.



4. FIRST AID MEASURES

4.1. Description of first aid measures

- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
- Skin contact : Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. If symptoms persist, call a physician. Wash contaminated clothing before re-use.
- Inhalation : Move to fresh air. If symptoms persist, call a physician.
- Ingestion : Induce vomiting if person is conscious. Rinse mouth. If conscious, drink plenty of water. If symptoms persist, call a physician.

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 : Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

- Suitable extinguishing media : Water spray, Carbon dioxide (CO₂), Dry powder, Alcohol-resistant foam
- Extinguishing media which shall not be used for safety reasons : High volume water jet

5.2. Special hazards arising from the substance or mixture

- Specific hazards during firefighting : In the event of fire (HCl, Cl₂, NO_x, CO) may be formed.

5.3. Advice for firefighters

- Special protective : Use personal protective equipment. Wear self contained



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Duplosan Super

Version 1 (Ireland)

Issuing date: 2014/11/14

equipment for firefighters

breathing apparatus for fire fighting if necessary.

Further Information

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

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. (see Chapter 8)

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Sweep up and shovel into suitable containers for disposal.

Additional advice : Never return spills in original containers for re-use.

6.4. Reference to other sections

see Chapter 13

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling advice : Wear personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Keep containers tightly closed in a cool, well-ventilated place.

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

7.3. Specific end use(s)

none



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters
(according to S.I. No. 619 of 2001)

Components	CAS-No.	National occupational exposure limits	Note
dichlorprop-P	15165-67-0		no classification available
MCPA	94-74-6		no classification available
mecoprop-P	16484-77-8		no classification available
2,4-Dichlorophenol	120-83-2		no classification available
4-chloro-o-cresol	1570-64-5		no classification available, Long-term exposure limit
dimethylamine	124-40-3	3.8 mg/m ³	Long-term exposure limit

8.2. Exposure controls

Personal protective equipment

- Respiratory protection : No special protective equipment required.
- Hand protection : PVC or nitrile-rubber gloves
- Eye protection : Safety glasses, , or:, Goggles
- Skin and body protection : lightweight protective clothing
- Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.
- Protective measures : Avoid contact with skin, eyes and clothing. Keep working clothes separately.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

- Physical state : liquid
- Form : Soluble concentrate
- Colour : dark yellow
- Odour : amine-like

- Flash point : >100 °C



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Duplosan Super

Version 1 (Ireland)

Issuing date: 2014/11/14

Ignition temperature	:	405 °C
Density	:	1.163 g/cm ³ at 20 °C
Water solubility	:	completely soluble
pH	:	6.8 at 10 g/l (20 °C)
Partition coefficient: n-octanol/water	:	log POW = -0.25 at 25 °C (pH 7), (dichlorprop-P) log POW = -0.71 at 25 °C (pH 7), (MCPA) log POW = 0.02 at 20 °C (pH 7), (MCP-P)
Viscosity, dynamic	:	30.7 mPa.s at 20 °C

9.2. Other information

none

10. STABILITY AND REACTIVITY

10.1. Reactivity

no data available

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Duplosan Super

Version 1 (Ireland)

Issuing date: 2014/11/14

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

No dangerous reaction known under conditions of normal use.

10.5. Incompatible materials to avoid

Strong acids and strong bases

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute oral toxicity : LD50 rat
Dose: 300 - 500 mg/kg

Acute dermal toxicity : LD50 rat
Dose: > 2,000 mg/kg

Acute inhalation toxicity : LC50 rat
Exposure time: 4 h
Dose: > 5.2 mg/l

Skin irritation : rabbit
Result: No skin irritation

Eye irritation : rabbit
Result: Severe eye irritation

Sensitisation : mouse
Result: Causes sensitization.

12. ECOLOGICAL INFORMATION

12.1. Toxicity



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Duplosan Super

Version 1 (Ireland)

Issuing date: 2014/11/14

- Toxicity to bees : LD50 (oral) Apis mellifera (Honey bee)
Testing period: 48 h
Dose ($\mu\text{g}/\text{Species}$): > 100
- : LD50 (contact) Apis mellifera (Honey bee)
Testing period: 48 h
Dose ($\mu\text{g}/\text{Species}$): > 107.6
- Toxicity to fish : LC50 Oncorhynchus mykiss (Rainbow trout)
Dose: > 1,000 mg/l
Testing period: 96 h
- Toxicity to daphnia : EC50 Daphnia magna (Water flea)
Dose: > 825 mg/l
Testing period: 48 h
- Toxicity to algae : EC50 Chlorella fusca
Dose: 1,170 mg/l
Exposure time: 96 h
- EC50 Lemna gibba (Duckweed)
Dose: 7.5 mg/l
Exposure time: 7 d

12.2. Persistence and degradability

- Biodegradability : Readily biodegradable.
- Stability in soil : DT50: 26.1 d
(dichlorprop-P)
- DT50: 24 d
(MCPA)
- DT50: 8.2 d
(mecoprop-P)

12.3. Potential bioaccumulation

- Bioaccumulation : Does not bioaccumulate.

12.4. Mobility in soil

- Koc = 12.9 - 83.7L/kg; 1/n= 0.589 - 0.908 (dichlorprop-P)
Koc = 10 - 157 (MCPA)
Koc = 20 - 43 (pH 5.6 - 7.6), 135 - 167 (pH 4.3 - 4.4) [mecoprop-P]



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Duplosan Super

Version 1 (Ireland)

Issuing date: 2014/11/14

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6. Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

According to European Directive 2000/532/EC as amended :

Waste Code : 02 01 08 (agrochemical waste containing dangerous substances)

13.1. Waste treatment methods

Product : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1. UN number

14.2. Proper shipping name

not applicable

14.3. Transport hazard class(es)

ADR/RID :

Not a dangerous substance as defined in the above regulations.

IMDG :

Not a dangerous substance as defined in the above regulations.

IATA-DGR :

Not a dangerous substance as defined in the above regulations.



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Duplosan Super

Version 1 (Ireland)

Issuing date: 2014/11/14

14.4. Packaging group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

none

15. REGULATORY INFORMATION

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

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.

15.2. Chemical Safety Assessment

none

16. OTHER INFORMATION

Print Date : 2014/11/14

The date format YYYY/MM/DD is used according to ISO 8601.
(Alterations are indicated in the left hand margin by: ||)

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.