

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

### 1.1. Product identifier

CA Code (Nufarm)	: 3190
Product code	: U905A
Oracle Recipe Code (Nufarm)	: 600000138
Item codes	: 100004805
Product form	: Mixture
Trade name	: THRUST
Type (Nufarm)	: Country Specific
Country (Nufarm)	: United Kingdom
Synonyms	: 2,4-D/DICAMBA DMA, 344/120G/L AI

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

#### 1.2.1. Relevant identified uses

Main use category	: Industrial use, 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

#### Manufacturer

Nufarm UK Limited  
Wyke Lane  
Wyke  
BD12 9EJ Bradford - UK  
T +44 (0)1274 691234 - F +44 (0) 1274691176  
[infouk@uk.nufarm.com](mailto:infouk@uk.nufarm.com)

### 1.4. Emergency telephone number

Emergency number : +44 (0)1274 696603

## 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
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

Full text of hazard classes and H-statements : see section 16

#### Adverse physicochemical, human health and environmental effects

Harmful if swallowed. May cause an allergic skin reaction. Causes serious eye damage. Toxic to aquatic life with long lasting effects.

### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

GHS07

GHS09

Signal word (CLP) :

Danger

Hazardous ingredients :

(2,4-DICHLOROPHENOXY)ACETIC ACID, DIMETHYLAMINE SALT, and 3,6-DICHLORO-OANISIC

Hazard statements (CLP) :

H302 - Harmful if swallowed.  
H318 - Causes serious eye damage  
H317 - May cause an allergic skin reaction.

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Precautionary statements (CLP)	: H411 - Toxic to aquatic life with long lasting effects. : P273 - Avoid release to the environment. P301+P312 - IF SWALLOWED: Call a doctor, a POISON CENTER if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. 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 doctor, a POISON CENTER. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements	: EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
(2,4-DICHLOROPHENOXY)ACETIC ACID, DIMETHYLAMINE SALT	(CAS-No.) 2008-39-1 (EC-No.) 217-915-8	35.7	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411
3,6-DICHLORO-O-ANISIC ACID, COMPOUND WITH DIMETHYLAMINE (1:1)	(CAS-No.) 2300-66-5 (EC-No.) 218-951-7 (EC Index-No.) 607-044-00-5	12.4	Eye Irrit. 2, H319 Aquatic Chronic 3, H412

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing).
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: May cause irritation to the digestive tract. Ingestion may cause nausea and vomiting. Abdominal pain, nausea.

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

Treat symptomatically. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released.

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### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust, mist or spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

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

For containment : Absorb spilled material with sand or earth.

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid the formation of mists in the atmosphere. Do not manipulate the product in a confined space.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container closed when not in use.

Storage temperature : > 10 °C

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

(2,4-DICHLOROPHENOXY)ACETIC ACID, DIMETHYLAMINE SALT (2008-39-1)		
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> 8 H
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup> 15 min

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### Personal protective equipment:

Protective clothing. Gloves. Safety glasses.

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

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In case of insufficient ventilation, wear suitable respiratory equipment



### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: brown.
Odour	: Amine-like.
Odour threshold	: No data available
pH	: 6.5 - 8.5
pH solution concentration	: 10 (6 - 9) g/l
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: $\approx 0$ °C
Boiling point	: > 100 °C
Flash point	: No data available
Auto-ignition temperature	: 425 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.152 - 1.165
Solubility	: Miscible with water.
Log Pow	: -0.83 (2,4-D)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 10.6 mPa.s 20°C
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing material according to EC criteria.
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions. Recommended storage temperature >10°C.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Heat.

### 10.5. Incompatible materials

Oxidizing agent. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

THRUST	
LD50 oral rat	1127 mg/kg
LD50 dermal rat	> 2000 mg/kg
(2,4-DICHLOROPHENOXY)ACETIC ACID, DIMETHYLAMINE SALT (2008-39-1)	
LD50 oral rat	625 mg/kg
LD50 dermal rabbit	2115 mg/kg
3,6-DICHLORO-O-ANISIC ACID, COMPOUND WITH DIMETHYLAMINE (1:1) (2300-66-5)	
LD50 oral rat	2629 mg/kg
LD50 dermal	> 2000 mg/kg rabbit
Acute toxicity (oral)	: Oral: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 6.5 - 8.5
Serious eye damage/irritation	: Causes serious eye damage. pH: 6.5 - 8.5
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: Toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.

THRUST	
LC50 fish 1	> 1000 mg/l Oncorhynchus mykiss (Rainbow trout)
LC50 fish 2	> 1000 mg/l Cyprinus carpio (Common carp)
EC50 Daphnia 1	> 1000 mg/l
EC50 72h algae (1)	204.6 mg/l
ErC50 (algae)	7.348 mg/l Lemna Gibba; 7d
NOEC (chronic)	46.2 mg/l Daphnia Magna; 21d; (2,4-D)
NOEC chronic fish	63.4 mg/l Pimephales promelas; 32d; (2,4-D)
NOEC chronic algae	0.32 Lemna Gibba; 7d
Additional Ecotox information	
LD50 (oral) Apis mellifera (Honey bee) 24h; > 100 µg/Species LD50 (oral) Apis mellifera (Honey bee) 48h; > 100 µg/Species LD50 (contact) Apis mellifera (Honey bee) 96h; > 200 µg/Species	
LC50 Eisenia fetida (earthworms) 14d; >1000ppm	
semi-static test NOEC Oncorhynchus mykiss 21d; 180mg/l (Dicamba) semi-static test NOEC Daphnia magna 21d; 97mg/l (Dicamba)	

(2,4-DICHLOROPHENOXY)ACETIC ACID, DIMETHYLAMINE SALT (2008-39-1)	
Additional Ecotox information	

3,6-DICHLORO-O-ANISIC ACID, COMPOUND WITH DIMETHYLAMINE (1:1) (2300-66-5)	
Additional Ecotox information	

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### 12.2. Persistence and degradability

THRUST	
Persistence and degradability	Readily biodegradable.

### 12.3. Bioaccumulative potential

THRUST	
Log Pow	-0.83 (2,4-D)
Bioaccumulative potential	No bioaccumulation.

### 12.4. Mobility in soil

THRUST	
Log Koc	Koc = 5 - 212 (2,4-D), Kfoc = 3.45 - 21.2 (Dicamba)
Ecology - soil	Adsorbs into the soil.

### 12.5. Results of PBT and vPvB assessment

THRUST	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

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

ADR	IMDG	IATA
<b>14.1. UN number</b>		
3082	3082	3082
<b>14.2. UN proper shipping name</b>		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2,4-DICHLOROPHENOXY)ACETIC ACID, DIMETHYLAMINE SALT)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2,4-DICHLOROPHENOXY)ACETIC ACID, DIMETHYLAMINE SALT)	Environmentally hazardous substance, liquid, n.o.s. ((2,4-DICHLOROPHENOXY)ACETIC ACID, DIMETHYLAMINE SALT)
<b>Transport document description</b>		
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2,4-DICHLOROPHENOXY)ACETIC ACID, DIMETHYLAMINE SALT), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2,4-DICHLOROPHENOXY)ACETIC ACID, DIMETHYLAMINE SALT), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. ((2,4-DICHLOROPHENOXY)ACETIC ACID, DIMETHYLAMINE SALT), 9, III
<b>14.3. Transport hazard class(es)</b>		
9	9	9
		
<b>14.4. Packing group</b>		
III	III	III
<b>14.5. Environmental hazards</b>		
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
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)	: 5I
Excepted quantities (ADR)	: E1

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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)	: 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

### 14.7. Transport in bulk according to Annex II of Marpol 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

Contains no REACH substances with Annex XVII restrictions  
Contains no substance on the REACH candidate list  
Contains no REACH Annex XIV substances

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### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Other information : For Transport - ADR classification based on using own data and according to the criteria of 2.2.9.1.10.3 and 2.2.9.1.10.4 of ADR 2011.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
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
Skin Sens. 1	Skin sensitisation, Category 1
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage
H319	Causes serious eye irritation.
H411	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.

NUFARM SDS TEMPLATE

*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*