

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

### 1.1. Product identifier

CA Code (Nufarm)	: 2526
Product code	: NLI1956
Oracle Recipe Code (Nufarm)	: 600000318
Item codes	: 110003827;110003917
Product form	: Mixture
Trade name	: KYLEO
Type (Nufarm)	: Country Specific
Country (Nufarm)	: United Kingdom

### 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

#### Distributor

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]

Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410

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

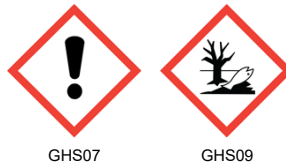
#### Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

GHS09

Signal word (CLP)	: Warning
Hazard statements (CLP)	: H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling. P272 - Contaminated work clothing should not be allowed out of the workplace.

# KYLEO

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

EUH-statements	P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 - IF ON SKIN: Wash with plenty of water. : EUH208 - Contains . May produce an allergic reaction. 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-D COCO AMINO PROPYL DMA	(CAS-No.) 1263319-17-0 (EC-No.) 934-143-3	32	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Glyphosate isopropylamine salt	(CAS-No.) 38641-94-0 (EC-No.) 254-056-8	27.9	Aquatic Chronic 2, H411

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Move victim to fresh air.
First-aid measures after skin contact	: Wash off immediately with soap and plenty of water. Take off contaminated clothing. If symptoms persist, call a physician.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. 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/effects	: Sweating. Headache. Feeling of weakness. Diarrhea. Nausea. Abdominal cramps. Cardiac disorders. Blurred vision. Coma. Circulatory collapse.
------------------	---

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Sand. Foam. Carbon dioxide.
Unsuitable extinguishing media	: high volume water jet.

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

Hazardous decomposition products in case of fire	: Hydrogen chloride. Chlorine. Nitrogen oxides. Carbon monoxide.
--	--

### 5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire.
Protection during firefighting	: Wear recommended personal protective equipment. Use self-contained breathing apparatus and chemically protective clothing.

## SECTION 6: Accidental release measures

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

General measures	: Refer to chapter 8.
------------------	-----------------------

# KYLEO

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing mist.

### 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

Methods for cleaning up : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Mechanically recover the product.

Other information : Never return spills in original containers for possible later re-use.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. Keep out of the reach of children.

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

Storage conditions : Store in original container. Store at room temperature.

Storage temperature : > 0 °C

Information on mixed storage : Keep away from food, drink and animal feeding stuffs.

Special rules on packaging : Keep only in original container. Store in a closed container.

### 7.3. Specific end use(s)

None.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Personal protective equipment:

Protective clothing. Gloves. Safety glasses.

#### Materials for protective clothing:

According to the conditions of use, protective gloves, apron, boots, head and face protection must be worn

#### Hand protection:

Wear gloves according to EN374 resistant to the solvent(s) in use.

#### Eye protection:

Safety glasses with side shields. EN 166

#### Skin and body protection:

According to the conditions of use, protective gloves, apron, boots, head and face protection must be worn

#### Respiratory protection:

This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used



# KYLEO

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### Other information:

Take off contaminated clothes. Wash contaminated clothing before reuse. Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: Yellow.
Odour	: odourless.
Odour threshold	: No data available
pH	: 4.67
pH solution concentration	: 10 g/l
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: ≈ 100 °C
Flash point	: Not applicable
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	: 1.26 g/cm <sup>3</sup> (20°C)
Solubility	: Water: Miscible with water
Log Pow	: 0.57 (20°C)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 276.7 mPa·s (20°C)
Explosive properties	: Not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not relevant Not relevant
Lower explosive limit (LEL)	: Not relevant
Upper explosive limit (UEL)	: Not relevant

### 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.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

No decomposition if stored normally.

### 10.5. Incompatible materials

Strong bases.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### KYLEO

LD50 oral rat	> 2000 mg/kg
---------------	--------------

# KYLEO

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

<b>KYLEO</b>	
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	Not applicable
<b>Glyphosate isopropylamine salt (38641-94-0)</b>	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Not classified (No skin irritation. Based on available data, the classification criteria are not met) pH: 4.67
Additional information	: rabbit
Serious eye damage/irritation	: mild eye irritation pH: 4.67
Additional information	: rabbit
Respiratory or skin sensitisation	: Skin sensitisation
Additional information	: Guinea pig
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (The European Chemicals Agency (ECHA) as well as the European Food Safety Agency (EFSA) and other regulatory agencies around the world (EPA, APVMA, JMPR administered jointly by FAO and WHO) classified glyphosate as non-carcinogenic on a risk-based evaluation. The International Agency for Research on Cancer (IARC) classified glyphosate as "probably carcinogenic to humans" (Group 2A) on hazard-based evaluation. Both EFSA and ECHA considered in their respective review the IARC evaluation resulting in non-carcinogenic classification of glyphosate)
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)
<b>KYLEO</b>	
Viscosity, kinematic	219.6031746 mm <sup>2</sup> /s

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Very toxic to aquatic life with long lasting effects.

<b>KYLEO</b>	
LC50 96h fish	3.2 mg/l Oncorhynchus mykiss (Rainbow trout)
EC50 48h crustacea	2.5 mg/l Daphnia magna
EC50 72h algae	1.28 mg/l Scenedesmus subspicatus
NOEC (chronic)	3.18 mg/l Daphnia magna
EbC50, Scenedesmus subspicatus	0,43 mg/L (72 Hours)
ErC50, Lemna Minor	2.7 g/L (7 days)
EC50, Lemna Minor	1.1 mg/L (7 days)
NOEC, Lemna Minor	0.1 mg/L (7 days)
NOEAEC, Lemna gibba (Duckweed)	3.2 mg/L (7 days)
<b>Additional ecotoxicological information</b>	

# KYLEO

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

KYLEO	
EC10 (Lemna gibba) 0.18-0.30 mg/L	
14d ErC50 (Myriophyllum aquaticum) 3.52mg/L (dry weight)	
NOErC (Myriophyllum aquaticum) 0.305 mg/L (growth shoot length, fresh weight, dry weight)	
14 ErC10 (Myriophyllum aquaticum) 0.39 mg/L (fresh weight)	
NOEC (Eisenia foetida) 472 mg/Kg dw soil	
LD50 oral (Apis mellifera) > 106.6 µg/bee	
LD50 contact (Apis mellifera) > 100 µg/bee	

Glyphosate isopropylamine salt (38641-94-0)	
LC50 96h fish	> 1000 mg/l
EC50 48h crustacea	930 mg/l
EC50 72h algae	72.9 mg/l
LD50, Birds	> 2000 mg/kg ((tested substance :, glyphosate))
LD50, Dermal, Apis mellifera (bee)	> 100 µg/bee ((tested substance :, glyphosate))
LD50, oral, Apis mellifera (bee)	> 100 µg/bee ((tested substance :, glyphosate))

### 12.2. Persistence and degradability

KYLEO	
Persistence and degradability	Not readily biodegradable.

Glyphosate isopropylamine salt (38641-94-0)	
Persistence and degradability	glyphosate (ISO); N-(phosphonomethyl)glycine. Not readily biodegradable.
Biodegradation	DT50 24h (water); 1.041h (soil)

### 12.3. Bioaccumulative potential

KYLEO	
Log Pow	0.57 (20°C)
Bioaccumulative potential	No bioaccumulation.

Glyphosate isopropylamine salt (38641-94-0)	
Bioconcentration factor (BCF REACH)	3.16 Estimated
Log Pow	< -3.2 glyphosate (ISO); N-(phosphonomethyl)glycine

### 12.4. Mobility in soil

KYLEO	
Koc	884 - 60000 (Glyphosate)

Glyphosate isopropylamine salt (38641-94-0)	
Mobility in soil	Constant of Henry's law (H): 1.82E-17 atm * m3 / mole; 25 ° C; Calculated

### 12.5. Results of PBT and vPvB assessment

KYLEO	
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	
Component	
Glyphosate isopropylamine salt (38641-94-0)	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

Regional legislation (waste) : Disposal must be done according to official regulations.  
Product/Packaging disposal recommendations : Do not re-use empty containers. Clean container with water.

## SECTION 14: Transport information




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

ADR	IMDG	IATA
14.1. UN number		
3082	3082	3082
14.2. UN proper shipping name		
ENVIRONMENTALLY HAZARDOUS	ENVIRONMENTALLY HAZARDOUS	Environmentally hazardous substance, liquid,

# KYLEO


## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

ADR	IMDG	IATA
SUBSTANCE, LIQUID, N.O.S. (2,4-D, Glyphosate)	SUBSTANCE, LIQUID, N.O.S. (2,4-D, Glyphosate)	n.o.s. (2,4-D, Glyphosate)
<b>Transport document description (ADR)</b>		
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D, Glyphosate), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D, Glyphosate), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (2,4-D, Glyphosate), 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
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

# KYLEO

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

Other information, restriction and prohibition regulations : WGK Germany: 3 - Severe hazard to waters.

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

None

## SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.1	Adverse physicochemical, human health and environmental effects	Added	
2.2	EUH-statements	Modified	
2.2	Precautionary statements (CLP)	Modified	
2.2	Hazard statements (CLP)	Modified	
7.2	Special rules on packaging	Added	
8.2	Personal protective equipment	Added	
9.1	Solubility in water	Added	
9.1	Viscosity, dynamic	Removed	
9.1	Viscosity, dynamic	Modified	
9.1	Log Pow	Modified	
9.1	Density	Modified	
9.1	pH	Modified	
11.1	Reason for no classification	Added	
11.1	Reason for no classification	Added	
11.1	Reason for no classification	Added	
11.1	Reason for no classification	Added	
11.1	Additional information	Added	
11.1	Reason for no classification	Added	
11.1	Reason for no classification	Modified	



# KYLEO

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

12.1	NOEC (chronic)	Added	
12.1	EC50 48h crustacea	Added	
12.1	NOEC chronic algae	Removed	
12.1	EC50 other aquatic organisms 1	Removed	
12.3	Bioaccumulative potential	Added	
12.3	Log Pow	Modified	

Full text of H- and EUH-statements:

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 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
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.
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.
EUH208	Contains . May produce an allergic reaction.
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.*