



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Nufosate Ace

Version 5 (UK)

Issuing date: 2012/01/31

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

1.1. Product identifier

Trade name : **Nufosate Ace**

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 : 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.

2.2. Label elements

according directive 1999/45/EG

Pictogram:



Xi



N

- R41 - Risk of serious damage to eyes.
 R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 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.

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 isopropylammonium salt
 Glyphosate 360g/L

3.2. Mixtures

Components	CAS-No.	EINECS-No. ELINCS No.	REACH No.	Symbol(s) R-phrase(s)	Concentration (w/w)
Glyphosate IPA salt	38641-94-0	254-056-8		N R51/53	41.5 %
Tallowalkylamineethoxylate	61791-26-2	500-153-8		Xn, N R22, R41, R51/53	8.1% - 13.5%

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 with soap and water. If symptoms persist, call a physician. Wash contaminated clothing before re-use.



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Nufosate Ace

Version 5 (UK)

Issuing date: 2012/01/31

- Inhalation : Move to fresh air. If symptoms persist, call a physician.
- Ingestion : Do NOT induce vomiting. 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. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

- Suitable extinguishing media : Water spray, Dry powder, Sand, Foam, Carbon dioxide (CO₂)
- 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 fire fighting : In the event of fire (NO_x, CO_x, P₂O₅) may be formed.

5.3. Advice for firefighters

- Special protective equipment for fire-fighters : Use personal protective equipment. Wear self contained 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

Use personal protective equipment. (see Chapter 8)

6.2. Environmental precautions



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Nufosate Ace

Version 5 (UK)

Issuing date: 2012/01/31

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). Shovel into suitable container 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 : Keep out of reach of children. Wear personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container.

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

7.3. Specific end uses

none

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters
(EH40/2005 Workplace exposure limits)

Components	CAS-No.	National occupational exposure limits	Note
Glyphosate IPA salt	38641-94-0		no classification available
Tallowalkylamineethoxylate	61791-26-2		no classification available

8.2. Exposure controls

Personal protective equipment



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Nufosate Ace

Version 5 (UK)

Issuing date: 2012/01/31

Respiratory protection	: No special protective equipment required.
Hand protection	: PVC or nitrile-rubber gloves
Eye protection	: Tightly fitting safety goggles
Skin and body protection	: Long sleeved clothing
Hygiene measures	: Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Remove and wash contaminated clothing and gloves, including the inside, before re-use.
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	: aqueous solution
Colour	: light brown
Odour	: amine-like
Melting point/range	: -10 °C
Boiling point/boiling range	: > 100 °C
Flash point	: does not flash
Ignition temperature	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: Active ingredient as salt in aqueous solution. Vapour pressure is negligibly low.
Density	: 1.17 g/cm ³ at 20 °C
Water solubility	: completely miscible



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

Nufosate Ace

Version 5 (UK)

Issuing date: 2012/01/31

pH	:	ca.4.6 at 20.6 g/l
Partition coefficient: n- octanol/water	:	log POW = < -3.2 at 20 °C (Glyphosate), (pH 5)
Dissociation constant	:	no data available
Viscosity, dynamic	:	no data available

9.2. Other information

none

10. STABILITY AND REACTIVITY

10.1. Reactivity

no data available

10.2. Chemical stability

No spontaneous or exothermic decomposition up to 100 °C.

10.3. Possibility of hazardous reactions

No decomposition if stored and applied as directed.

10.4. Conditions to avoid

No dangerous reaction known under conditions of normal use.

10.5. Incompatible materials to avoid

Strong bases

10.6. Hazardous decomposition products

no data available



11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute oral toxicity	:	LD50 rat Dose: > 2,000 mg/kg
Acute dermal toxicity	:	LD50 rat Dose: > 4,000 mg/kg
Acute inhalation toxicity	:	LC50 rat Exposure time: 4 h Dose: 3.18 mg/l
Skin irritation	:	rabbit Result: No skin irritation
Eye irritation	:	rabbit Result: Eye irritation
Sensitisation	:	Guinea-pig Result: Did not cause sensitization on laboratory animals.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to bees	:	Not toxic to bees.
Toxicity to earthworms	:	LD50 Eisenia fetida (earthworms) Dose: > 5,000 mg/kg Testing period: 14 d
Toxicity to fish	:	LC50 Oncorhynchus mykiss (rainbow trout) Dose: 7.5 mg/l Testing period: 96 h
Toxicity to daphnia	:	EC50 Daphnia



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Nufosate Ace

Version 5 (UK)

Issuing date: 2012/01/31

Dose: 8.5 mg/l
Testing period: 48 h

Toxicity to algae : EC50 *Desmodesmus subspicatus* (green algae)
Dose: 16 mg/l
Exposure time: 72 h

12.2. Persistence and degradability

Biodegradability : no data available

Stability in soil : DT50: ca. 4 d
DT90 : < 20 d
(Glyphosate)

12.3. Potential bioaccumulation

Bioaccumulation : Does not bioaccumulate.

12.4. Mobility in soil

no data available

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

none

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 product and packaging in accordance with The Green Code. (The Code of Practice for the safe use of Pesticides on Farms and Holdings.) A MAFF Publication.

Contaminated packaging : Do not dispose with household waste. Do not re-use empty



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

Nufosate Ace
Version 5 (UK)

Issuing date: 2012/01/31

containers. Dispose at licensed waste disposal site capable of accepting pesticides in compliance with applicable regulations.

14. TRANSPORT INFORMATION

14.1. UN number

UN3082

14.2. Proper shipping name

UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.*(Glyphosate, Tallow alkylamine ethoxylate)

14.3. Transport hazard class(es)

ADR/RID :
Class : 9

IMDG :
Class : 9

IATA-DGR :
Class : 9

14.4. Packaging group

ADR/RID : III

IMDG : III

IATA-DGR : III

14.5. Environmental hazards

IMDG :
Marine pollutant : Y

14.6. Special precautions for user

none



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Nufosate Ace

Version 5 (UK)

Issuing date: 2012/01/31

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 : 2012/01/31

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

Full text of R-phrases referred to under sections 2 and 3

- R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R22 - Harmful if swallowed.
- R41 - Risk of serious damage to eyes.
- R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.