

Material Safety Data Sheet

KIBOSH

1. Identification of the substance/preparation and company/undertaking:

MAPP Number: **MAPP 13976**

Trade Name: Kibosh

Recommended Uses: Herbicide for crop desiccation and non-selective control of grass and broad-leaved weeds in a range of crop and non-crop situations.

Manufacturer/Supplier: AgChemAccess Ltd
Pure House
64-66 Westwick Street
Norwich
NR2 4SZ
United Kingdom

Telephone number: +44 (0) 1603 624413

Fax Number: +44 (0) 1603 616993

E-mail: enquire@agchemaccess.com

Emergency Telephone Nos: 023 8040 7831 [AgChemAccess 24 hrs.]

0870-600-6266 [UK National Poisons Control Information Service (NPIS) Centre]

01-8379964/66 [Poisons Information Centre, Beaumont Hospital, Beaumont, Dublin 9, Ireland]

2. Composition/Information on Ingredients:

HAZARDOUS COMPONENTS:

Component	CAS	EINECS	Conc.	Risk	Hazard
	Reg. No.	ELINCS No.	% w/w	Phrases*	Symbol
Glufosinate ammonium	77182-82-2	278-636-5	13.5	R22	Xn
Alkylethersulfate, sodium salt	68891-38-3	-	50 - 70	R38, 41	Xi
1-methoxy-2-propanol	107-98-2	203-539-1	5 - 20	R10	-

For the full text of the R phrases listed, see section 16.

3. Hazards Identification

Health Hazards: Harmful in contact with skin and if swallowed. Risk of serious damage to eyes.

4. First Aid Measures

General: Have the product container, label or Materials Safety Data Sheet with you when calling the Poisons Information Service, AgChemAccess, a physician or when going for medical treatment. Move out of contaminated area and place victim in the recovery position if necessary. Remove contaminated clothing and dispose of safely.

Skin Contact: Wash affected area immediately with plenty of soap and water. Remove contaminated clothing and wash thoroughly before re-use. Seek medical advice if symptoms persist.

Eye Contact: Rinse immediately with plenty of water for at least 15 minutes, including under eyelids. Remove contact lenses if worn. Call a physician or the poison control centre immediately.

Inhalation: Remove patient to fresh air and seek medical advice or call the poison control centre if symptoms persist. Keep the patient warm and at rest.

Ingestion: If swallowed, contact poison control centre or seek medical advice immediately and show product container or label. Do not induce vomiting. Rinse mouth with clean water and dispose of residues safely.

Further Information: Note to medical staff: The onset of symptoms may be slow to appear. Symptoms include hyperthermia, dyspnoea, stomach pains, tachycardia, respiratory disorder, spasm and feeling dazed.

If a mouthful of more has been ingested, there is no specific antidote. Keep the patient under medical supervision and monitor EEG, fluid balance, respiratory, cardiac and nervous system activity for at least 48 hours with supportive treatment for the symptoms as they occur. Elimination by dialysis or haemoperfusion may help but first perform endotracheal intubation for gastric lavage followed by administration of activated charcoal and sodium sulphate. Therapeutic care may include 1 mg/Kg Phenobarbital-sodium injected intra-muscularly or subcutaneously (maximum 5 mg/Kg daily) and, when necessary, 10 mg Diazepam slowly intravenously. Atropine for contra-indication and recovery is spontaneous.

5. Fire-fighting measures:

Extinguishing Media for fires: Use water spray, foam, sand or carbon dioxide. Do not use a solid water stream since this may spread the fire.

Specific hazards during fire-fighting: During a fire the smoke produced may contain toxic or noxious vapour containing carbon monoxide, nitrous oxides, phosphorus oxides (e.g. phosphorus pentoxide) and sulphur oxides.

Special protective equipment for fire-fighters: Wear full protective clothing and self-contained breathing apparatus. DO NOT breathe fumes.

Further Information: Contain fire-fighting water with sand or some such bunding material to prevent entry to drains or water courses. Avoid breathing smoke. Cool closed containers exposed to the fire with a water spray.

6. Accidental release measures:

Personal precautionary measures: Wear the personal protective equipment outlined in section 8 below. Remove contaminated clothing immediately. Wash skin area with soap and water. Wash clothing before re-use.

Environmental protection measures: Keep the area isolated and do not allow contamination to enter drains or waterways. Prevent further leakage if safe to do so. Spillage or uncontrolled discharges into watercourses must be alerted to the National Rivers Authority or Environmental Agency (Tel: 0800 807060).

Procedures for cleaning/absorption: Contain spillages and absorb onto non-combustible material such as sand or vermiculite. Place in containers for disposal according to local/national regulations (see section 13). Clean contaminated floors and objects thoroughly and dispose of cleaning equipment safely.

7. Handling and storage:

Handling: Use the personal protective equipment detailed in section 8. Avoid contact with skin or eyes. When using, do not eat, drink or smoke and wash hands and exposed skin after work. Provide suitable exhaust ventilation at processing machines. Whilst the product is flammable, it is not self-ignitable, not an explosive risk and does not promote fires.

Storage: Store in a cool dry and well-ventilated place in the original containers and protect from excessive heat or cold. Keep in an area accessible to authorised personnel only. Protect from frost. Keep out of reach of children and away from food, drink and animal feeding stuffs. Suitable containers are coextruded with an internal barrier layer of ethylene vinyl alcohol copolymer (EVOH) or polyamide (PA).

Additional information: The product is stable for at least two years when stored at ambient temperatures in the unopened container. Ensure temperature does not exceed 40°C for long periods.

8. Exposure controls/Personal protection:

Engineering measures to reduce exposure: Engineering controls to avoid exposure are preferable to personal protective equipment where practically feasible to use. Good general ventilation is sufficient for most operations but local exhaust ventilation is needed in some situations.

Components with workplace control parameters

Components	CAS No.	Control parameters	Basis
1-methoxy-2-propanol	107-98-2	375 mg/m ³ ; 100ppm (TWA)	EH40 WEL
1-methoxy-2-propanol	107-98-2	560 mg/m ³ ; 150ppm (STEL)	EH40 WEL

Personal protective equipment: Avoid contact with skin, eyes or clothing. Keep work clothes separate from other clothing. Clothing that cannot be cleaned should be burned.

Eye protection: Wear goggles conforming to EN166 (Field of use 5 or equivalent).

Hand protection: Wear nitrile rubber gloves of at least 0.4 mm thickness. Wash contamination from the gloves immediately and dispose of safely if perforated or contaminated on the inside. Wash hands before eating, drinking or smoking and before using the toilet.

Respiratory protection: No respiratory is normally needed but, if there is a risk of inhaling droplet, wear a particulate filter. These filters should only be used control residual risk for short periods when where other measures such as containment or local exhaust ventilation have already been deployed. Adhere to the maintenance and wearing instructions of the filter manufacturer.

Skin and body protection: Wear a standard coverall and Type 6 suit. Overalls should be worn under a chemical protection suit and should be professionally laundered frequently. Do not eat, drink or smoke while working. Wash hands and face before breaks and immediately after handling the product.

9. Physical and chemical properties:

Appearance:	Liquid.
Colour:	Blue – blue/green.
Odour:	Weakly pungent.
pH:	6.8-7.8 @ 100%, 23°C.
Boiling point:	ca 99°C @ 1013 hPa.
Flash point:	ca 57°C.
Ignition temperature:	ca 455°C.
Autoignition temperature:	ca 405°C.
Explosive risk:	Not explosive.
Density:	1.10 g/cm ³ '20°C.
Impact sensitivity:	Not impact sensitive.
Surface tension:	ca 29 mN/m @ 40°C..

10. Stability and reactivity:

Stability: Stable under normal storage conditions.

Conditions to avoid: Extremes of temperature (below -10°C or above 40°C) and direct sunlight.

Materials to avoid: None.

Thermal decomposition: >200°C, when heated at 10 K/min.

Hazardous reactions: None known when stored or used as recommended. Alkaline substances will invoke the release of ammonia.

11. Toxicological information:

Oral toxicity (LD ₅₀):	1730 mg/kg (rat)
Acute inhalation toxicity (LC ₅₀):	2.97 mg/l (rat) over 4 hour exposure*.
Acute dermal toxicity (LD ₅₀):	596 mg/kg (rat).
Skin irritation:	Slight irritation (rabbit), does not require labelling.
Eye irritation:	Risk of serious damage to eyes (rabbit).
Sensitisation:	Non-sensitising (Guinea pig).

* Inhalation toxicity tested with a respirable aerosol; under normal usage no respirable aerosols are formed.

12. Ecological information:

Ecotoxicological effects:

Toxicity to fish (LC ₅₀):	13.4 mg/l (<i>Onchorhynchus mykiss</i> [rainbow trout]). Exposure time 96 hours.*
Toxicity to algae (EC ₅₀):	71.3 mg/l (<i>Selenastrum capricornutum</i> [green algae]). Exposure time 72 hours.*
Toxicity to aquatic Invertebrates (EC ₅₀):	17.8 mg/l (<i>Daphnia magna</i> [water flea]). Exposure time 48 hours.*
Biodegradability:	Single components are biologically degradable.

* Test conducted with a similar formulation.

13. Disposal considerations:

Waste from residues and unused product: Do not contaminate ponds, waterways or ditches. In accordance with current regulations after consultation with a disposal site operator and/or the responsible authority, this product may be taken to a waste disposal site or an incineration plant.

Contaminated packaging: Empty containers and triple rinse. Dispose of small empty containers according to the 'Code of Practice for the Safe Use of Pesticides on Farms and Holdings' available from HMSO. Large containers (> 25 litres or 25 Kg) should not be rinsed but merely returned to the supplier. Do not re-use container for any purpose.

Waste key for unused product: 020108 agrochemical waste containing dangerous substances.

14. Transport information:

LAND/SEA/AIR (RID / ADR / IMDG / IATA)

Labels	UN Number	Packaging group
6.1	2902	III

Description of goods: PESTICIDE, LIQUID, TOXIC, N.O.S. (Glufosinate-ammonium solution).

Hazard No: 60

EnS F-A, S-A

Emergency action code: 2X

15. Regulatory information:

This product has been classified according to 'The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP 3 and any subsequent amendments. Classification and labelling is according to EC Directive on dangerous preparations 1999/45/EC as amended.

Hazardous components which must be listed on the label:

- Glufosinate-ammonium.

Hazard symbol/

Classification : Xn HARMFUL

Risk phrases (R): R21/22 Harmful in contact with skin and if swallowed.
R41 Risk of serious damage to eyes.

Safety phrases: S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37 Wear suitable protective clothing and gloves.
S39 Wear suitable eye/face protection.

Special note: To avoid risks to man and the environment, comply with the instructions for use.

WHO classification: Moderately hazardous.

16. Other information:

Health and Environmental Hazards:

Text of R phrases mentioned in Section 2.

Risk phrases (R)	R10	Flammable
	R22	Harmful if swallowed.
	R38	Irritating to skin.
	R41	Risk of serious damage to eyes.

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Disclaimer: The information contained in this MSDS is designed to give general health and safety guidance on the storage and transport of the substance/preparation to which it relates. Requirements arising from a Risk Assessment of the substance/preparation in a particular working environment should take precedence over any of the guidance contained in this MSDS where there is a difference in the information given. The information contained in this MSDS is accurate at the date of publication and will be updated as and when appropriate. Liability will not be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this MSDS.

Compiled in accordance with EC Directive 91/155/EEC and subsequent amendments EC Directives 93/112/EEC and 2001/58/EC.