

# SAFETY DATA SHEET



**Product Name:** TUMBLEWEED PRO **Reference No:** 321

**Version No.:** 1 **Revision Date:** N/A **Date of Introduction:** September 2002

## 1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY

**Product Name** TUMBLEWEED PRO  
**Common name of active ingredient** Isopropylamine salt of N-(phosphonomethyl)glycine  
{Isopropylamine salt of glyphosate}  
**Intended use** For use only as a horticultural, industrial, forestry or aquatic herbicide.  
**Company Identification** **Scotts UK Professional**  
**Paper Mill Lane**  
**Bramford**  
**Ipswich** **Telephone +44 (0) 1473 830492**  
**Suffolk, IP8 4BZ**  
**Emergency Telephone** **01865 407333 (24hr)**

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

**JBA No:** 019203  
**NPK:** Not applicable

### Chemical Characterisation

<u>Chemical name</u>	<u>CAS-No</u>	<u>EINECS/ELINCS</u>	<u>Classification</u>	<u>Concentration</u>
Isopropylamine salt of glyphosate	38641-94-0	254-056-8	-	54%
Ethoxylated tallowamine surfactant	61791-26-2	-	Xn, R22, R41, R43	5%
Water	7732-18-5	231-791-2	-	41%

## 3. HAZARDS IDENTIFICATION

**Physicochemical:** NOT CLASSIFIED

**Health:**

**Potential health effects** Likely routes of exposure: skin contact, eye contact.

**Ingestion** May cause gastrointestinal tract irritation, (discomfort, nausea, vomiting, diarrhoea)

**Eye contact, short term** Not expected to produce significant adverse effects when recommended use instructions are followed.

**Skin contact, short term** Not expected to produce significant adverse effects when recommended use instructions are followed.

**Inhalation, short term** Not expected to produce significant adverse effects when recommended use instructions are followed.

**Environmental:** Not expected to produce significant adverse effects when recommended use instructions are followed.  
Refer to section 11 for toxicological and section 12 for environmental information.  
Harmful to fish or other aquatic life. Do not contaminate surface waters or ditches with chemical or used container.

## 4. FIRST AID MEASURES

**General information** This product is not an inhibitor of cholinesterase.  
Treatment with atropine and oximes is not indicated.

**Inhalation** Remove patient to fresh air.

**Skin contact** Take off contaminated clothing, wristwatch, jewellery. Wash affected skin with plenty of water.  
Wash clothes before re-use.

**Eye contact** Immediately flush with plenty of water. If there are persistent symptoms, obtain medical advice.

**Ingestion** Immediately offer water to drink. Do NOT induce vomiting unless directed by medical personnel.  
If symptoms occur, get medical attention.

**5. FIRE FIGHTING MEASURES**

<b>Flash point</b>	Does not flash
<b>Extinguishing media</b>	Water fog, foam, dry chemical, carbon dioxide (CO <sub>2</sub> )
<b>Extinguishing media to avoid</b>	Strong water jet
<b>Unusual fire and explosion hazards</b>	Minimise use of water to prevent environmental contamination. Environmental precautions: see section 6.
<b>Hazardous products of combustion</b>	Carbon monoxide (CO), phosphorus oxides (PxOy), nitrogen oxides (NOx)
<b>Protective equipment</b>	Suitable protecting clothing and self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions</b>	Use personal protection recommended in section 8.
<b>Environmental precautions</b>	Small quantities: Low environmental hazard. Large quantities: Minimise spread. Keep out of drains, sewers, ditches and waterways.
<b>Methods for cleaning up</b>	Small quantities: Flush spill area with water. Large quantities: Absorb in earth, sand or absorbent materials.. Dig up heavily contaminated soil. Collect in containers for disposal. Refer to section 7 for types of containers. Flush residues with small quantities of water. Minimise use of water to prevent environmental contamination. Refer to section 13 for disposal of spilled material.

**7. HANDLING & STORAGE**

<b>Handling</b>	Good industrial practice in housekeeping and personal hygiene should be followed. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Wash hands thoroughly after handling or contact. Thoroughly clean equipment after use. Do not contaminate drains, sewers and waterways when disposing of equipment rinse water. Emptied containers retain vapour and product residue. Observe all labelled safeguards until container is cleaned, reconditioned or destroyed.
<b>Storage conditions</b>	Temperature (minimum – maximum): >-15°C - <50°C Compatible material for storage: Stainless steel, aluminium, fibreglass, plastic, glass lining. Incompatible materials for storage: Galvanised steel, unlined mild steel, see also section 10. Keep out of reach of children. Keep away from food, drink and animal feed. Keep only in the original container. Partial crystallisation may occur on prolonged storage below the minimum storage temperature. If frozen, place in warm room and shake frequently to put back into solution.
<b>Minimum shelf life</b>	5 years.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>Airborne exposure limits</b>	<b>Components</b>	<b>Exposure guidelines</b>
	Isopropylamine salt of glyphosate	No specific occupational exposure limit has been established
	Surfactant	No specific occupational exposure limit has been established
	Water	No specific occupational exposure limit has been established
<b>Engineering controls</b>	No special requirement when used as recommended	
<b>Eye protection</b>	If there is significant potential for contact wear chemical goggles.	
<b>Skin protection</b>	If repeated or prolonged contact wear chemical resistant gloves.	
<b>Respiratory protection</b>	No special requirement when used as recommended.  When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.	

**9. PHYSICAL & CHEMICAL PROPERTIES**

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

<b>Physical form</b>	Liquid
<b>Colour</b>	Yellow – amber
<b>Odour</b>	Slight, amines.
<b>pH</b>	4.4 – 4.9 @50g/l
<b>Boiling pt / range</b>	Not determined
<b>Flash point</b>	Does not flash
<b>Specific gravity</b>	1.199@20°C / 4°C
<b>Water solubility</b>	Completely miscible
<b>Partition coefficient (log Pow)</b>	<0.000 (active ingredient)

**10. STABILITY & REACTIVITY**

<b>Stability</b>	Stable under normal conditions of handling and storage.
<b>Hazardous decomposition products</b>	Hazardous products of combustion: Carbon monoxide (CO), phosphorus oxides (P <sub>x</sub> O <sub>y</sub> ), nitrogen oxides (Nox)
<b>Material to avoid / reactivity.</b>	Reacts with galvanised steel or unlined mild steel to product hydrogen, a highly flammable gas that could explode.

**11. TOXICOLOGICAL INFORMATION**

This section is intended for use by toxicologists and other health professionals. Data on product, similar products and on components are summarised below.

<b>Acute oral toxicity</b>	Rat LD <sub>50</sub> (limit test): >5,000 mg/kg body weight. No mortality
<b>Acute dermal toxicity</b>	Rabbit LD <sub>50</sub> (limit test): >5,000mg/kg body weight. No mortality
<b>Skin irritation</b>	Rabbit, 6 animals, OECD 404 test. Redness, mean EU score: 0.33 Swelling, mean EU score: 0.00 Days to heal: 3
<b>Eye irritation</b>	Rabbit, 6 animals, OECD 405 test. Conjunctival redness, mean EU score: 1.78 Conjunctival swelling, mean EU score: 1.17 Corneal opacity, mean EU score: 0.00 Iris lesions, mean EU score: 0.00 Days to heal: 7 Slightly irritating to eyes but not sufficient for classification.
<b><u>Similar formulation</u></b>	
<b>Acute inhalation toxicity</b>	Rat LC <sub>50</sub> (limit test), 4 hours, aerosol (3 fold dilution): >5.7mg/L Aerosol particle size (<10 micron) much lower than the droplet size (>100 micron) normally achieved during spraying operations. Maximum attainable concentration. No mortality.
<b>Skin sensitisation</b>	Guinea pig, 9-induction Buehler test: positive incidence: 0%.
<b><u>Experience with human exposure</u></b>	
<b>Ingestion, excessive, intentional misuse</b>	Respiratory effects: pneumonitis (aspiration) Gastro-intestinal effects: nausea/vomiting, diarrhoea, abdominal pain, bloody vomiting (haematemesis)
<b>Cardiovascular effects</b>	Abnormal heart rhythm (cardiac dysrhythmia), decreased heart output (myocardial depression)
<b>General/systemic effects</b>	Disturbances of fluid and electrolyte regulation, abnormally decreased blood volume (hypovolaemia), elevated serum amylase, fluid loss (haemoconcentration), no cholinesterase inhibition.

**11. TOXICOLOGICAL INFORMATION**

This section is intended for use by toxicologists and other health professionals. Data on product, similar products and on components are summarised below.

**Laboratory effect – blood chemistry** Elevated serum transaminases, mild acidosis.

**Eye contact, short term, epidemiological** Note: No cases of irreversible eye effects could be attributed to glyphosate formulation in an extensive epidemiological survey of reported accidental eye contact with these formulations.

**N-phosphonomethyl glycine (glyphosate)**

**Mutagenicity** In vitro and in vivo mutagenicity test(s): not mutagenic

**Repeated dose toxicity** Rabbit, dermal, 21 days:  
NOAEL toxicity: >5,000mg/kg diet.  
Target organs / systems: None  
Other effects: None

Rat, oral, 3 months:  
NOAEL toxicity: >20,000mg/kg diet  
Target organs / systems: None  
Other effects: None

**Carcinogenicity** Mouse, oral, 24 months:  
NOEL tumour: >30,000mg/kg diet  
NOAEL toxicity: ~5,000mg/kg diet  
Tumours: None.  
Target organs / systems: liver  
Other effects: decrease of body weight gain, histopathologic effects.

Rat, oral, 24 months:  
NOEL tumour: >20,000mg/kg diet  
NOAEL toxicity: ~8,000mg/kg diet  
Tumours: None  
Target organs / systems: eyes  
Other effects: decrease of body weight gain, histopathologic effects.

**Toxicity to reproduction/fertility** Rat, oral, 3 generations:  
NOAEL toxicity: >30mg/kg body weight  
NOAEL reproduction: >30mg/kg body weight  
Target organs/systems in parents: None  
Other effects in parents: None  
Target organs / systems in pups: None  
Other effects in pups: None

**Developmental toxicity / teratogenicity** Rat, oral, 6-19 days of gestation:  
NOAEL toxicity: 1,000mg/kg body weight  
NOAEL development: 1,000mg/kg body weight  
Other effects in mother animal: decrease of body weight gain, decrease of survival.  
Developmental effects: weight loss, post-implantation loss, delayed ossification.  
Effects on offspring only observed with maternal toxicity.

Rabbit, oral, 6-27 days of gestation:  
NOAEL toxicity: 175mg/kg body weight  
NOAEL development: 175mg/kg body weight.  
Target organs/systems in mother animal: none  
Other effects in mother animal: decrease of survival  
Developmental effects: None

**12. ECOLOGICAL INFORMATION**

This section is intended for use by ecotoxicologists and other environmental specialists.  
Data on product, similar products and on components are summarised below.

<b>Aquatic toxicity, fish</b>	Rainbow trout ( <i>Oncorhynchus mykiss</i> ) Bluegill sunfish ( <i>Lepomis macrochirus</i> )	Acute toxicity, 96 hours, static, LC <sub>50</sub> : >100mg/L Acute toxicity, 96 hours, static, LC <sub>50</sub> : >40mg/L
<b>Aquatic toxicity, invertebrates</b>	Water fleas ( <i>Daphnia magna</i> )	Acute toxicity, 48 hours, static, LC <sub>50</sub> : 100mg/L
<b>Similar formulation</b>		
<b>Aquatic toxicity, fish</b>	Bluegill sunfish ( <i>Lepomis macrochirus</i> ) Rainbow trout ( <i>Oncorhynchus mykiss</i> )	Acute toxicity, 96 hours, flowthrough, LC <sub>50</sub> : 5.8mg/L Acute toxicity, 96 hours, flowthrough, LC <sub>50</sub> : 8.2mg/L
<b>Aquatic toxicity, invertebrates</b>	Water fleas ( <i>Daphnia magna</i> )	Acute toxicity, 48 hours, static, EC <sub>50</sub> : 12.9mg/L
<b>Aquatic toxicity, algae, aquatic plants</b>	Green algae ( <i>Selenastrum capricornutum</i> )	Acute toxicity, 72 hours. Static EbC <sub>50</sub> (biomass): 2.1mg/L
<b>Avian toxicity</b>	Bobwhite quail ( <i>Colinus virginianus</i> ) Mallard duck ( <i>Anas platyrhynchos</i> )	Dietary toxicity, 5 days, LC <sub>50</sub> : >5,620mg/kg diet Dietary toxicity, 5 days, LC <sub>50</sub> : >5,620mg/kg diet
<b>Arthropod toxicity</b>	Honey bee ( <i>Apis mellifera</i> )	Oral/contact, 48 hours, LD <sub>50</sub> : > 100µg/bee
<b><u>N-(phosphonomethyl)glycine (glyphosate)</u></b>		
<b>Bioaccumulation</b>	Bluegill sunfish ( <i>Lepomis macrochirus</i> )	Whole fish: BCF: <1 No significant bioaccumulation is expected.
<b>Dissipation</b>	Soil, field  Water, aerobic	Half life: >2 – 174 days Koc: 884 – 60,000 L/kg days Binds strongly to soil. Half life: > 7 days
<b><u>Surfactant</u></b>		
<b>Biodegradation</b>	Zahn-Wellens test	Degradation: 80% within 28 days Inherently biodegradable

**13. DISPOSAL CONSIDERATIONS**

<b>Product</b>	Recycle if appropriate facilities/equipment available. Burn in special, controlled high temperature incinerator. Dispose of as hazardous industrial waste. Keep out of drains, sewers, ditches and waterways. Follow all local/regional/national regulations.
<b>Container</b>	Triple rinse empty containers. Pour rinse water into spray tank. Store for collection by approved waste disposal service. Dispose of as non-hazardous industrial waste. Do NOT re-use containers. Follow all local/regional/national regulations.

**14. TRANSPORT INFORMATION**

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Not regulated for transportation.

**15. REGULATORY INFORMATION**

**Classification & labelling** NOT CLASSIFIED

This Safety Data Sheet does not form part of the label approved under the Control of Pesticide Regulations 1986.

Following the instructions on the pesticide product label for the specified uses should ensure that the product is used safely and efficaciously for those uses.

**Current registration no.** MAPP 11083

**Risk phrases** NOT APPLICABLE.

**Safety phrases / precautions (from the label)**

WEAR SUITABLE PROTECTIVE GLOVES when handling or applying the concentrate.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS, FACE PROTECTION (FACESHIELD) AND SUITABLE RESPIRATORY EQUIPMENT (disposable filtering facepiece respirator) when making drift application or using mist blower equipment.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE GLOVES AND RUBBER BOOTS when using hand-held rotary atomisers and weedwiper equipment.

WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

WASH CONCENTRATE from skin of eyes immediately.

WASH HANDS AND EXPOSED SKIN before meals and after work.

HARMFUL TO FISH OR OTHER AQUATIC LIFE. Do not contaminate surface waters or ditches with chemical or used container.

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.

WASH OUT CONTAINER THOROUGHLY, empty washing into spray tanks and dispose of safely.

**16. OTHER INFORMATION**

**Further information**

The Control of Substances Hazardous to Health Regulations (COSHH) may be applicable to the use of this product.

**Risk phrases referred to in section 2 for composite ingredients.**

R22: Harmful if swallowed.

R41: Risk of serious damage to eyes.

R43: May cause sensitisation by skin contact.

For further advice authorised persons (e.g. doctor) may contact the National Poisons Information Service Centre:

UK National number: 0870 600 6266

Eire (Dublin) 00 3531 8379964 or 00 3531 8379966

**Sources of data**

EH40/2002 and other suppliers' safety data sheets

**Date of issue**

September 2002

**The information on this sheet is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product.**

**It is not applicable to unusual or non standard uses of the product nor where instructions or recommendations are not followed.**