



MATERIAL SAFETY DATA SHEET

BUSH PIG

SUPPLIER: ZETACHEM.A DIVISION OF THE OMNIA GROUP (PTY) LTD
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EMERGENCY TELEPHONE NUMBERS: SPILLAGES

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POISONINGS

TYGERBERG POISON INFORMATION CENTRE: +27 21 9316129
TOXICOLOGY INFORMATION CENTRE: 0824910160

1. IDENTIFICATION OF THE SUBSTANCE

TRADE NAME:	BUSH PIG (HERBICIDE)
ACTIVE INGREDIENT:	GLYPHOSATE
CHEMICAL NAME:	N – (PHOSPHONOMETHYL) GLYCINE
CAS NO:	38641- 94-0
CHEMICAL FAMILY:	PHOSPHANOGLYCINE
UN NO.:	3018
NIOSH/RTECS NO:	MC 1075000
USE:	NON-SELECTIVE, SYSTEMATIC HERBICIDE ABSORBED THROUGH THE LEAVES.

2. COMPOSITION/ INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT:	GLYPHOSATE 360g/l
SYMBOLS:	NOT APPLICABLE
RISK PHRASE (S):	R 52

3. HAZARD IDENTIFICATION

INHALATION:	MAY IRRITATE RESPIRATORY TRACT
INGESTION:	HARMFUL IF SWALLOWED IN LARGE AMOUNTS
EYE CONTACT:	MAY CAUSE MODERATE IRRITATION.
SKIN CONTACT:	NON-IRRITATING TO THE SKIN.



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4. FIRST AID MEASURES

SYMPTOMS OF GLYPHOSATE POISONINGS ARE RARE BUT INCLUDE: HEADACHE, LETHARGY, DIARRHOEA, WEAKNESS AND COLLAPSE. NAUSEA AFTER INGESTION HAS BEEN OBSERVED.

EYES AND FACE:

IMMEDIATELY FLUSH WITH WATER, CONTINUING FOR 15 MINUTES. SEEK MEDICAL ATTENTION IF NECESSARY.

SKIN:

REMOVE ALL CONTAMINATED CLOTHING ITEMS. FLUSH WITH PLENTY OF WATER. IF IRRITATION PERSISTS GET MEDICAL ATTENTION.

INHALATION:

REMOVE VICTIM TO FRESH AIR. GET MEDICAL ATTENTION IF NEEDED.

INGESTION:

HAVE VICTIM RINSE MOUTH THOROUGHLY WITH WATER. DO NOT INDUCE VOMITTING. REMOVE BY GASTRIC LAVAGE AND CATHARSIS. GIVE OXYGEN IF RESPIRATION IS DEPRESSED. DO NOT PERFORM GASTRIC LAVAGE IF VICTIM IS UNCONSCIOUS. ADMINISTRATION OF GASTRIC LAVAGE AND OXYGEN SHOULD BE PERFORMED BY QUALIFIED MEDICAL PERSONNEL. SEEK MEDICAL ADVICE IMMEDIATELY, SHOWING THE CONTAINER AND LABEL.

NOTES TO PHYSICIAN:

THERE IS NO SPECIFIC ANTIDOTE. TREAT SYMPTOMATICALLY AND SUPPORTIVELY AS AND WHEN REQUIRED. REMOVE BY GASTRIC LAVAGE AND CATHARSIS, HOWEVER NOT IF THE VICTIM IS UNCONSCIOUS. GIVE OXYGEN IF RESPIRATION IS DEPRESSED.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:	FOAM, CARBON DIOXIDE OR DRY CHEMICAL.
FIRE HAZARDS:	NON-FLAMMABLE (WATER BASED).
EXPLOSION HAZARDS:	SLIGHT
PROTECTION FOR FIREFIGHTERS:	FIREFIGHTERS AND ANYONE EXPOSED TO THE FIRE MUST WEAR SELF CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.
SPECIAL HAZARD:	NO FIRE HAZARD. SLIGHT EXPLOSION HAZARD.



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6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

PERSONAL PRECAUTIONS:

ENSURE SUITABLE PERSONAL PROTECTION DURING REMOVAL OF SPILLAGE TO AVOID SKIN AND EYE CONTACT. DO NOT INHALE FUMES.

ENVIRONMENTAL PRECAUTIONS:

PREVENT ENTRY TO DRAINS OR WATER COURSES. INFORM THE LOCAL AUTHORITIES IF THE PRODUCT CONTAMINATES PUBLIC WATERS.

FOR SMALL SPILLS:

DIKE AND ABSORB SPILL WITH SAND OR INERT MATERIAL (EG. SAWDUST). SHOVEL INTO DRUMS FOR DISPOSAL.

FOR LARGE SPILLS:

CONTAIN LIQUID FAR AHEAD OF SPILL. CONTAIN SPILLAGE AND CONTAMINATED WATER FOR SUBSEQUENT DISPOSAL. DO NOT FLUSH SPILLED MATERIAL INTO DRAINS. KEEP SPECTATORS AWAY.

7. HANDLING AND STORAGE

HANDLING:

HARMFUL BY INHALATION OR IF SWALLOWED. AVOID CONTACT WITH EYES, PROLONGED CONTACT WITH SKIN, AND INHALATION OF SPRAY AND FUMES. USE WITH ADEQUATE VENTILATION. WASH HANDS BEFORE EATING, DRINKING, CHEWING GUM, SMOKING OR USING TOILET. REMOVE CLOTHING IMMEDIATELY IF THE HERBICIDE GETS INSIDE. THEN WASH SKIN THOROUGHLY USING A NON-ABRASIVE SOAP AND PUT ON CLEAN CLOTHING. DO NOT APPLY DIRECTLY TO AREAS WHERE SURFACE WATER IS PRESENT, OR TO INTERTIDAL AREAS BELOW THE MEAN HIGH WATER MARK. WATER USED TO CLEAN EQUIPMENT MUST BE DISPOSED OF CORRECTLY TO AVOID CONTAMINATION.

STORAGE:

STORE IN ITS ORIGINAL LABELED CONTAINER IN SHADED, WELL-VENTILATED AREA, AWAY FROM HEAT, SPARKS AND OTHER SOURCES OF IGNITION. DO NOT STORE IN GALVANISED STEEL OR UNLINED STEEL CONTAINERS. NOT TO BE STORED NEXT TO FOODSTUFFS AND WATER SUPPLIES. KEEP OUT OF REACH OF CHILDREN AND ANIMALS. LOCAL REGULATIONS SHOULD BE COMPLIED WITH.



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8. EXPOSURE CONTROL/ PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:	TLV NOT ESTABLISHED
RESPIRATORY PROTECTION:	MULTI CARTRIDGE RESPIRATOR IF INHALATION IS POSSIBLE
EYES AND FACE:	WEAR GOGGLES. DO NOT WEAR CONTACT LENSES.
HANDS, ARMS AND BODY:	RUBBER GLOVES AND FULL WORK CLOTHING. ADD PROTECTIVE CLOTHING IF SPLASHING OR REPEATED CONTACT WITH SOLUTION IS LIKELY.
OTHER CLOTHING & EQUIPMENT:	EYE WASH AND QUICK DRENCH SHOWER.

9. PHYSICAL DATA AND CHEMICAL PROPERTIES

PHYSICAL STATE:	WATER BASED LIQUID
APPEARANCE:	STRAW COLOURED
ODOUR:	MILD AMINE ODOUR
FLASH POINT:	DOES NOT FLASH
DENSITY:	1.166 g/cm ³ @20°C
pH AS IS:	4.0 – 5.5
DILUTION STABILITY:	STABLE
SOLUBILITY:	MISCIBLE (WATER)

10. REACTIVITY AND STABILITY

STABILITY

STABLE UNDER NORMAL TEMPERATURES AND PRESSURES. GLYPHOSATE REACTS STRONGLY (POSSIBLY VIOLENT EXOTHERMIC REACTION) WITH STRONG ALKALIS. PHOTODECOMPOSITION IS NEGLIGIBLE. GLYPHOSATE IS STABLE TO LIGHT AND ALSO STABLE UP TO 60°C. GLYPHOSATE MAY BE PHOTOLABILE IN NATURAL WATERS, WITH CALCIUM OR OTHER METAL IONS ACTING AS CATALYSTS FOR THE PROCESS.



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INCOMPATIBILITY

PRODUCT IS RELATIVELY STABLE IN NEUTRAL, WEAKLY ACIDIC AND WEAKLY ALKALINE MEDIA, BUT REACTS STRONGLY (AND POSSIBLY VIOLENTLY) WITH STRONG ALKALIS. MIXING WITH OTHER PRODUCTS MAY REDUCE THE ACTIVITY OF GLYPHOSATE.

HAZARDOUS DECOMPOSITION PRODUCTS

TOXIC OXIDES OF CARBON, NITROGEN AND PHOSPHOROUS ARE RELEASED WHEN THE PRODUCT DECOMPOSES ON HEATING.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL LD ₅₀ FOR RATS:	> 5000 mg/kg
ACUTE ORAL LD ₅₀ FOR GOATS:	5700 mg/kg
ACUTE PERCUTANEOUS LD ₅₀ FOR RABBITS: (SKIN AND EYE)	> 5000 mg/kg
EYE IRRITANT, NON IRRITATING TO SKIN (RABBIT).	
INHALATION LC ₅₀ (4h) FOR RATS:	>1.3 mg/l AIR

MUTAGENICITY:

ANIMAL STUDIES DID NOT DETECT ANY MUTAGENIC EFFECTS. NO HUMAN INFORMATION AVAILABLE.

CARCINOGENICITY:

ANIMAL STUDIES DID NOT DETECT ANY CARCINOGENIC EFFECTS. NO HUMAN INFORMATION AVAILABLE.

TERATOGENICITY:

ANIMAL STUDIES DID NOT DETECT ANY TERATOGENIC EFFECT. NO HUMAN INFORMATION AVAILABLE.

NEUROTOXICITY:

ANIMAL STUDIES DID NOT DETECT ANY NEUROTOXIC EFFECTS. NO HUMAN INFORMATION AVAILABLE.



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12. ECOLOGICAL INFORMATION

ECOTOXICOLOGY

FISH:

LC₅₀ (96h) FOR TROUT AND BLUEGILL SUNFISH: > 1000 mg/l

LC₅₀ (96h) FOR FATHEAD MINNOW: 97 mg/l

LC₅₀ (96h) CHANNEL CATFISH: 130mg/l

DAPHNIA:

LC₅₀ (48h) 930 mg/l

ALGAE:

EC₅₀ (72h) FOR SCENEDESMUS SUBSPICOTUS: 72.9mg/l

OTHER AQUATIC SPECIES:

EC₅₀ (48h) FOR MIDGE LARVAE: 5600 mg/l

EC₅₀ FOR LITORIA MOOREI TADPOLE: >343 mg/l

WORMS:

LC₅₀ (14d) FOR EISENIA FOETIDA: > 5000 mg/kg SOIL

DEGRADABILITY:

IN SOIL THE HALF LIFE OF THE PRODUCT IS 60 DAYS.

MOBILITY:

THE PRODUCT IS PRACTICALLY IMMOBILE AND IS UNLIKELY TO LEACH.

ACCUMULATION:

THE PRODUCT SHOWS LITTLE OR NO TENDENCY TO BIO-ACCUMULATE AND POSES NO LONG TERM THREAT TO WILDLIFE.

13. DISPOSAL CONSIDERATION

PESTICIDE DISPOSAL:

WASTE RESULTING FROM THE USE OF THIS PRODUCT THAT CANNOT BE REUSED OR REPROCESSED SHOULD BE DISPOSED OF IN A LANDFILL APPROVED FOR PESTICIDE DISPOSAL OR IN ACCORDANCE WITH APPLICABLE LOCAL PROCEDURES. HYDROLYSIS UNDER ALKALINE CONDITIONS IS A SUITABLE METHOD TO DISPOSE OF SMALL QUANTITIES OF THE PRODUCT. AFTER HYDROLYSIS, DILUTE AND DISPOSE OF IN PITS OR LANDFILL. COMPLY WITH ANY LOCAL LEGISLATION APPLYING TO WASTE DISPOSAL.



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PACKAGE PRODUCT WASTES:

EMPTIED CONTAINERS RETAIN VAPOUR AND PRODUCT RESIDUES. OBSERVE ALL LABELLED SAFEGUARDS UNTIL CONTAINER IS CLEANED, RECONDITIONED OR DESTROYED. COMBUSTIBLE CONTAINERS SHOULD BE DISPOSED OF IN PESTICIDE INCINERATORS. NON-COMBUSTIBLE CONTAINERS MUST FIRST BE TRIPLE RINSED WITH WATER, PUNCTURED AND RECYCLED OR DISPOSED OF.

14. TRANSPORT INFORMATION

UN. NO:	3018
ADR/RID:	NOT REGULATED
IMDG/IMO:	NOT REGULATED
ICAO/ IATA:	NOT REGULATED
TREM CARD NO.:	1884-3018-10529
TRADE NAME:	BUSH PIG (HERBICIDE)

15. REGULATORY INFORMATION

SYMBOL:	NOT APPLICABLE
RISK PHRASES:	
R 52	HARMFUL TO AQUATIC ORGANISMS.
SAFETY PHRASES:	
S 2	KEEP OUT OF REACH OF CHILDREN
S 36/37/39	WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/ FACE PROTECTION.
S 45	IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE.)
S 61	AVOID RELEASE TO THE ENVIRONMENT
NATIONAL LEGISLATION:	IN ACCORDANCE WITH THE SOUTH AFRICAN OCCUPATIONAL HEALTH AND SAFETY ACT 1993 (ACT NO. 85 OF 1993).



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16. OTHER INFORMATION

USAGE: FOR WEED CONTROL
READ LABEL BEFORE USE OR PURCHASE.
USE HERBICIDES SAFELY.

DISCLAIMER

THE INFORMATION AND RECOMMENDATIONS ARE OFFERED FOR THE USER'S CONSIDERATION AND EXAMINATION, AND IT IS THE USER'S RESPONSIBILITY TO SATISFY ITSELF THAT THEY ARE SUITABLE AND COMPLETE FOR IT'S PARTICULAR USE.

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