

Safety Data Sheet

according to WHS Regulations

Printing date 20.07.2022

Revision: 20.07.2022

1 Identification

Product Name: TKO 550 Duo Herbicide

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: Agricultural herbicide

Details of Manufacturer or Importer:

Titan Ag Pty Ltd
Princes Street Marina
Suite 15/16 Princes Street
Newport NSW 2106

Phone Number: 02 9999 6655

Emergency telephone number: 02 9999 6655

2 Hazard(s) Identification

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition), IATA and IMDG/IMSBC.
Not subject to the ADG Code when transported in Australia by Road or Rail in packagings that do not incorporate a receptacle exceeding 500 kg(L); or IBCs (refer to SP AU01). However if transported by Air or Sea, this provision does not apply.



Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Skin Corrosion/Irritation 2 H315 Causes skin irritation.

Eye Irritation 2A H319 Causes serious eye irritation.

Aquatic Acute 2 H401 Toxic to aquatic life.

Signal Word Warning

Hazard Statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P321 Specific treatment (see on this label).

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P337+P313 If eye irritation persists: Get medical advice/attention.

P391 Collect spillage.

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P501

Dispose of contents/container in accordance with local/regional/national regulations.

3 Composition and Information on Ingredients

Chemical Characterization: Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.**Hazardous Components:**

CAS: 40465-76-7	Monoethanolamine salt of glyphosate	30-60%
	⚠ Aquatic Chronic 2, H411	
CAS: 70901-12-1	Potassium salt of glyphosate	30-60%
	⚠ Aquatic Chronic 2, H411	
CAS: 61791-26-2	Amines, tallow alkyl, ethoxylated	5-10%
	⚠ Skin Corrosion/Irritation 1C, H314; Serious Eye Damage/Irritation 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Toxicity (Oral) 4, H302	
CAS: 111-46-6	Diethylene glycol	1-5%
	⚠ Acute Toxicity (Oral) 4, H302	

4 First Aid Measures

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if irritation occurs.

Eye Contact:

In case of eye contact, rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: May cause respiratory irritation.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Ingestion: May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

5 Fire Fighting Measures

Suitable Extinguishing Media: Use fire extinguishing methods suitable to surrounding conditions.

Specific Hazards Arising from the Chemical:

No hazardous decomposition products known.

Product is not flammable.

Containers close to fire should be removed only if safe to do so. Use water spray to cool fire exposed containers.

Prevent run-off from fire fighting entering drains or water courses.

HAZCHEM Code: •3Z

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

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6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses. Inform respective authorities in case of seepage into water course or sewage system.

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal.

7 Handling and Storage

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from heat, sparks, open flames and other sources of ignition.

8 Exposure Controls and Personal Protection

Exposure Standards:
CAS: 111-46-6 Diethylene glycol

WES TWA: 100 mg/m³, 23 ppm

Engineering Controls:

Ensure adequate ventilation of the working area, keeping airborne concentrations below occupational exposure standards.

Respiratory Protection:

Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

Protective gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered. Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:

Safety glasses with top and side shields or goggles. See Australian/New Zealand Standards AS/NZS 1336 and 1337 for more information.

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9 Physical and Chemical Properties

Appearance:

Form:	Liquid
Colour:	No information available
Odour:	No information available
Odour Threshold:	No information available
pH-Value:	No information available
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	No information available
Flammability:	Product is not flammable
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure:	No information available
Relative Density:	~1.33
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Miscible
Partition Coefficient (n-octanol/water):	No information available

10 Stability and Reactivity

Possibility of Hazardous Reactions: No dangerous reactions known under conditions of normal use.**Chemical Stability:** Stable at ambient temperature and under normal conditions of storage and use.**Conditions to Avoid:** Heat, sparks, open flames and other sources of ignition.**Incompatible Materials:** None known.**Hazardous Decomposition Products:** No hazardous decomposition products known.

11 Toxicological Information

Toxicity:**LD50/LC50 Values:****CAS: 70901-12-1 Potassium salt of glyphosate**

Oral LD50 >2,000 mg/kg (rat)

CAS: 111-46-6 Diethylene glycol

Oral LD50 12,565 mg/kg (rat)

LD50 11,890 mg/kg (rabbit)

Acute Health Effects**Inhalation:** May cause respiratory irritation.**Skin:** Causes skin irritation.**Eye:** Causes serious eye irritation.**Ingestion:** May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.**Skin Corrosion / Irritation:** Causes skin irritation.**Serious Eye Damage / Irritation:** Causes serious eye irritation.

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Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.**Carcinogenicity:** Glyphosate is classified by IARC as Group 2A - Probably carcinogenic to humans.**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.**Chronic Health Effects:** No information available**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for glyphosate for a human is 0.3 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 30 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

(Ref: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2022).

12 Ecological Information

Ecotoxicity:**Aquatic toxicity:**

Toxic to aquatic life with long lasting effects.

CAS: 111-46-6 Diethylene glycol

LC50/96 h 75,200 mg/l (fathead minnow)

Persistence and Degradability: No data available on finished product.**Bioaccumulative Potential:** No data available on finished product.**Mobility in Soil:** No data available on finished product.**Other adverse effects:** No further relevant information available.

13 Disposal Considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

14 Transport Information

UN Number**ADG, IMDG, IATA**

UN3082

Proper Shipping Name**ADG, IMDG, IATA**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (POTASSIUM AND
MONOETHANOLAMINE SALTS OF GLYPHOSATE)

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Dangerous Goods Class	
ADG Class:	9
Packing Group:	
ADG, IMDG, IATA	III
Marine pollutant:	No
EMS Number:	F-A,S-F
Hazchem Code:	•3Z
Special Provisions:	274, 331, 335, 375, AU01
Transport/Additional information:	Not subject to the ADG Code when transported by road or rail in packagings that do not incorporate a receptacle exceeding 500 kg(L) or IBCs. (refer to SP AU01)
Excepted quantities (EQ):	E1
Limited Quantities:	5L
Packagings & IBCs - Packing Instruction:	P001, IBC03, LP01
Packagings & IBCs - Special Packing Provisions:	PP1
Portable Tanks & Bulk Containers - Instructions:	T4
Portable Tanks & Bulk Containers - Special Provisions:	TP1, TP29

15 Regulatory Information

Australian Inventory of Industrial Chemicals:

All components are on the inventory, or in compliance with the inventory.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Poison Schedule:

Poisons Schedule: 5

16 Other Information

Date of Preparation or Last Revision: 20.07.2022**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au

Abbreviations and acronyms:

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Acute Toxicity (Oral) 4: Acute toxicity – Category 4

Skin Corrosion/Irritation 1C: Skin corrosion/irritation – Category 1C

Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2

Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation – Category 1

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1

Aquatic Acute 2: Hazardous to the aquatic environment, short-term (Acute). Category 2

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

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Aquatic Chronic 2: Hazardous to the aquatic environment, long-term (Chronic). Category 2

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - July 2020"

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