SANONDA
(AUSTRALIA) PTY LTD

Ph: 03 9863 8081/ Fax: 03 9863 8083

Suite 822, St Kilda Road Tower,
1 Queens Road, Melbourne, VIC 3004

email@sanondaoz.com
www.sanondaoz.com

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1. Product identifiers

Product name : Sanonda Herbicide Glyphosate 700 SG

Active ingredient : Glyphosate acid

Product code : Not allocated.

1.2. Other means of identification

IUPAC name: N-(phosphonomethyl)glycine

1.3. Recommended use of the chemical and restrictions on use

A non-selective herbicide for the control of many annual and perennial weeds in certain situations as indicated in the Directions for use.

1.4. Details of the supplier of the safety data sheet

Sanonda (Australia) Pty Ltd (ABN 23 059 813 973)

Address: Suite 822, St Kilda Road Towers, No. 1 Queens Road, Melbourne,
Victoria 3004 Australia.

TEL: +61 3 9863 8081

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email@sanondaoz.com

1.4. Emergency telephone number

Emergency number : +61 3 9863 8081

SECTION 2: Hazards identification

2.1. GHS classification of the substance or mixture

Eye damage/irritation : Category 1

2.2. Label elements

Signal word : Danger

Hazard statements (CLP) : H318 - Cause serious eye damage.

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Precautionary statements : P264 - Wash hands and exposed skin thoroughly after handling.
P280 - Wear protective gloves, clothing, eye and face protection.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a poisons centre or doctor/physician.
P302+352 - IF ON SKIN: Wash with plenty of soap and water.
P362 - Take off contaminated clothing and wash before reuse.

Hazard pictogram : Corrosion

SECTION 3: Composition/information on ingredients

Identity of chemical ingredients	CAS	Concentration
Glyphosate acid	1071-83-6	700 g/kg
Other non-hazardous ingredients	-	300 g/kg

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (phone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to a doctor.

If inhaled

Remove affected person to fresh air until recovered.

In case of skin contact

Wash affected areas thoroughly with soap and water.

If irritation persists, seek medical advice.

In case of eye contact

If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.

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Seek medical advice.

If swallowed

If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

Do not give anything by mouth to a semi-conscious or unconscious person. Give a glass of water.

Advice to Doctor

Treat symptomatically.

4.2. Most important symptoms and effects, both acute and delayed

Glyphosate is a chemical used mainly in herbicides. Ingestion and other exposures to the chemical can cause various symptoms. The type and severity of symptoms varies depending on the amount of chemical involved and the nature of the exposure. Symptoms of Chemical poisoning (Glyphosate) include Reduced urination, Cough, Diarrhea, Drowsiness, Swallowing difficulty, etc.

4.3. Indication of any immediate medical attention and special treatment needed

Call a physician or poison control center immediately

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.

Water, foam, carbon dioxide or dry chemical.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: If involved in a major fire, could evolve oxides of nitrogen or phosphorus.
Explosive hazard	: Product is not explosive.
Reactivity	: This product, or spray solutions of this product, react with galvanized steel or unlined steel (except stainless steel) containers and tanks, to produce hydrogen gas which may form a highly flammable or explosive gas mixture.

5.3. Special protective equipment and precautions for fire fighters

Breathable air apparatus may have to be worn if material is involved in fires, especially in confined spaces.

SECTION 6: Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and PVC gloves. If there is a significant chance that dusts are likely to build up in the cleanup area, the use of a suitable dust mask is recommended. Large spills should be dyked or covered to prevent dispersal. Vacuum shovel or pump spilled material into an approved container and dispose of as listed in section 13 or in accordance with the requirements of Local or State Waste Management Authorities.

6.2. Environmental precautions

Prevent from entering drains, waterways or sewers.

6.3. Methods and materials for containment and cleaning up

To clean spill area, tools and equipment, wash with a solution of soap, water and acetic acid/vinegar. Follow this with a neutralisation step of washing the area with a bleach or caustic soda ash solution. Finally, wash with a strong soap and water solution. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected.

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways. This product is a herbicide and spills can damage crops, pastures and desirable vegetation. Prevent from entering drains, waterways or sewers. Use earthen bunds or absorbent bunding to prevent spreading of spillage.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure containers are kept closed until using product. Harmful if swallowed. Will damage eyes and will irritate the skin. Avoid contact with eyes and skin. When opening the container and preparing the product for use wear elbow-length PVC gloves and goggles. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles and contaminated clothing.

7.2. Conditions for safe storage, including any incompatibilities

Keep out of reach of children. Store in the closed, original container in a dry, cool, well-ventilated area, out of direct sunlight. DO NOT store near food, feedstuffs, fertilisers or seed. DO NOT dispose of any undiluted chemical on-site.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters-exposure standards, biological monitoring

No exposure guidelines have been established for the active ingredient in this product by Safe Work Australia.

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8.2. Appropriate engineering controls

Keep containers closed when not in use. No special engineering controls are required, however make sure that the work environment remains clean and that dusts and mists are minimised.

8.3. Personal Protection Equipment

General: Wear elbow-length PVC gloves and goggles. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles and contaminated clothing.

Personal Hygiene: Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance	: Slight yellow granular solid
b) Odour	: No odour
c) pH	: Approximately 4 – 7 (1% w/v)
d) Flash point	: Not flammable
e) Flammability (solid, gas)	: Not flammable
f) Vapour pressure	: Not available
g) Specific gravity	: Bulk density – 0.65 ± 0.01 g/cm^3
h) Solubility in water	: Miscible

9.2. Other information

Persistent foam: 20mL maximum, after 1 min.

SECTION 10: Stability and reactivity

10.1. Reactivity

This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

10.2. Chemical stability

Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

10.3. Incompatible materials and possible hazardous reactions

Strong oxidising agents. Do not mix or store the product or spray solutions in galvanized steel or unlined steel (except stainless steel). Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime.

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10.4. Conditions to avoid

Do not store for prolonged periods in direct sunlight. Keep dry.

10.5. Hazardous decomposition products

This product is likely to decompose if involved in a fire or other strong heating. Carbon dioxide, and if combustion is incomplete, carbon monoxide, smoke and other toxic fumes are likely to be formed.

SECTION 11: Toxicological information

11.1. Information on routes of exposure and symptoms related to exposure

No harmful effects are expected if the precautions on the label and the SDS are followed.

Eyes and skin exposure may cause irritating effects.

11.2. Immediate, delayed and chronic health effects from exposure

Acute toxicity

LD_{50} oral rats	> 5000 mg/kg for a similar product
LD_{50} dermal rats	> 5000 mg/kg for a similar product
LC_{50} inhalation rats, rabbits, guinea pigs or cats	Rat (4hr) > 5.04 mg/L for glyphosate acid
Eye irritation	The granules may cause physical irritation of the eyes. Prolonged contact with the spray solution may cause damage to the eye.
Skin irritation	This product maybe irritating to the skin.
Skin sensitization	Do not cause skin sensitization

Germ cell mutagenicity

The compound does not cause mutations in microbes. The tests on eight different kinds of bacterial strains and on yeast cells were all negative. The compound poses little mutagenic risk to humans.

Carcinogenicity

Rats and dogs and mice fed glyphosate over a wide range of doses showed no cancer related effects directly due to the compound. EPA has stated that there is sufficient evidence to conclude that glyphosate is not carcinogenic in humans.

Reproductive toxicity

Most of the field and laboratory evidence shows that glyphosate produces no reproductive changes in test animals. It is unlikely that the compound would produce any reproductive effects in humans.

Teratogenic toxicity

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In a teratology study with rabbits, the maternal NOEL was 175 mg/kg/day and no developmental toxicity was observed in the fetuses at the highest dose tested (350 mg/kg/day).

Rats given doses up to 3,500 mg/kg on days 6 to 19 of pregnancy had offspring with no teratogenic effects, but other toxic effects were observed in both the mothers and the fetuses. No toxic effects to the fetuses occurred at 1,000 mg/kg/day.

11.3. Exposure Levels/Chronic effects

Subchronic and chronic tests with glyphosate have been conducted with rats, dogs, mice, and rabbits in studies lasting from 21 days to two years. With few exceptions there were no treatment-related gross (easily observable) or cellular changes. In a chronic feeding study with rats, no toxic effects were observed in rats given doses as high as 31 mg/kg/day, the highest dose tested. No toxic effects were observed in a chronic feeding study with dogs fed up to 500 mg/kg/day, the highest dose tested. Mice fed glyphosate for 90 days exhibited reduced body weight gains. The lifetime administration of very high amounts of glyphosate produced only a slight reduction of body weight and some microscopic liver and kidney changes. Blood chemistry, cellular components, and organ function were not affected even at the highest doses.

Hens fed massive amounts over three days and again 21 days later showed no nerve related effects.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

LC_{50} fish	Technical glyphosate acid is practically nontoxic to fish and may be slightly toxic to aquatic invertebrates. The reported 96-hour LC_{50} values for other aquatic species include greater than 10 mg/L in Atlantic oysters, 934 mg/L in fiddler crab, and 281 mg/L in shrimp.
LC_{50} daphnia	The 48-hour LC_{50} for glyphosate in Daphnia (water flea), an important food source for freshwater fish, is 780 mg/L.
EC_{50} algae	E_bC_{50} (72 h) for glyphosate in green algae (*Selenastrum capricornutum*) 485 mg/l, (7 d) 13.8 mg/l, ErC_{50} (72 h) 460 mg/l; EC_{50} (96 h) for marine algae (*Skeletonema costatum*) 1.3 mg/l, (7 d) 0.64 mg/l; EC_{50} (7 d) for diatom (*Navicula pelliculosa*) 42, blue-green algae (*Anabaena flos-aquae*) 15 mg/l.

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Other Organisms	Glyphosate is nontoxic to honeybees. It's oral and dermal LD_{50} is greater than 0.1 mg/bee.

12.2. Persistence and degradability

Breakdown in soil and groundwater:

Glyphosate is moderately persistent in soil, with an estimated average half-life of 47 days. Reported field half-lives range from 1 to 174 days. It is strongly adsorbed to most soils, even those with lower organic and clay content.

Breakdown in water:

In water, glyphosate is strongly adsorbed to suspended organic and mineral matter and is broken down primarily by microorganisms. Its half-life in pond water ranges from 12 days to 10 weeks.

Breakdown in vegetation:

Glyphosate may be translocated throughout the plant, including to the roots. It is extensively metabolized by some plants, while remaining intact in others.

12.3. Bioaccumulative potential

Glyphosate's low octanol/water coefficient and low fat (lipids) solubility indicate that it has a low tendency to bioaccumulate.

12.4. Mobility in soil

Glyphosate has low mobility and only a slight tendency to leach in soil. According to Linders et al. (1994), glyphosate is classified as very slightly mobile in soil. Glyphosate is inactivated through soil adsorption; it has low leaching potential and very low volatility (Franz et al. 1997).

12.5. Other adverse effects

No data is available

SECTION 13: Disposal considerations

13.1. Safe handling and disposal methods

On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).

13.2. Disposal of any contaminated packaging

When the container is empty, shake any residual material into the spray tank. Shred and bury empty packaging in a local authority landfill. If no such landfill is available, bury the packaging below 500 mm in a disposal pit

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specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

13.3. Environmental regulations

drumMUSTER is the national program for the collection and recycling of empty, cleaned, non-returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

SECTION 14: Transport information

14.1. UN number

UN-No. : Not allocated.

14.2. UN proper shipping name

Not allocated

14.3. Transport hazard class(es)

Class (UN) : Not allocated.

Hazard labels (UN) : Not allocated.

14.4. Packaging group

Packing group (UN) : Not allocated.

14.5. Environmental hazards

Dangerous for the environment : Low toxicity to aquatic environment.

IMDG Marine pollutant : Not dangerous when transported by sea.

Other information :

Not classified as a Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail, the International Maritime Dangerous Goods (IMDG) Code or the International Air Transport Association (IATA).

14.6. Special precautions for user

Wash hands and exposed skin thoroughly after handling.

Wear protective gloves, clothing, eye and face protection.

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14.7. Hazchem Code

2X

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 5 poison. This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. APVMA Approval number: 69769/61688.

Product is not classified as a Dangerous Good according to the ADG Code (7th Ed), the International Maritime Dangerous Goods (IMDG) Code or the International Air Transport Association (IATA).

Classified as a hazardous substance according to criteria of Safe Work Australia.

Requirements concerning special training:

Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

15.2. Poisons Schedule number

This product is a Schedule 5 Poison and must be stored, transported and sold in accordance with the relevant Health Department regulations.

SECTION 16. OTHER INFORMATION

16.1. Date of preparation or last revision of SDS

Revised 11/28/2016

Revisions Highlighted: The SDS was reviewed to include GHS requirements.

16.2. Contact Point

Sanonda (Australia) Pty Ltd

Suite 822, St Kilda Road Towers,

No.1 Queens Road, Melbourne, VIC 3004

Telephone: 03 9863 8081

Facsimile: 03 9863 8083

16.3. Key/legend to abbreviations and acronyms used in the SDS

ADG Code: Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail)

IMDG Code: International Maritime Dangerous Goods

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This SDS contains only safety-related information. For other data see product literature.

All due care and skill, so far as practicable, has been applied in the preparation and collation of the information in this SDS. Each user of the Product named in this SDS should read and consider the information contained in this SDS in the context of how the Product will be stored, handled, used or applied in the workplace. In all circumstances, it is the responsibility of the user of the Product to ensure that they have sought out the relevant safety data appropriate to their particular situation. Nothing contained in this SDS shall be construed as a representation or recommendation to the user about the suitability or otherwise of the Product named in this SDS for the user's particular situation. If the user requires any clarification or further information, the user should contact Sanonda (Australia) Pty Ltd.

National Poisons Information Centre: Dial 13 11 26 (from anywhere in Australia)

Please read all labels carefully before using product.