

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name: Kenso Agcare Diuron 900 WG Herbicide
Product Type: Group C Herbicide
Company Name: Kenso Corporation (M) Sdn Bhd
Address: Level 1, 98 Commercial Road, Teneriffe, 4005 QLD.
Telephone Number: (07) 3216 1188
Facsimile Number: (07) 3216 0388
Emergency Telephone Number: 000 (Police or Fire Brigade)
13 11 26 (Poisons Information Centre)
Use: For selective weed control in the situations as specified in the directions of use table.

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Classification: Classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code.



GHS Signal Word: **WARNING**
Hazard statement: H302: Harmful if swallowed.
H351: Suspected of causing cancer.
H373: May cause damage to organs through prolonged or repeated exposure cause the hazard.
H410: Very toxic to aquatic life with long lasting effects.
Prevention: P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe dust/fume/ gas/mist/ vapours/spray.
P264: Wash contacted area thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.
Response: P281: Use personal protective equipment as required.
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P308+P313: IF exposed or concerned: Get medical advice/ attention.
P314: Get medical advice/ attention if you feel unwell.
P330: Rinse mouth.
P391: Collect spillage.
Storage: P405: Store locked up.
Disposal: P501: Dispose of contents and containers as specified on the registered label.

SUSMP Classification: N/A
ADG Classification: N/A
UN Number: N/A

Emergency Overview

Physical Description & colour: Granulated solid.

Odour: No specific odour.

Major Health Hazards: May cause serious damage to health by prolonged exposure, harmful is swallowed.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Diuron	330-54-1	90%
Inert ingredients	secret	to 100%

SECTION 4 – FIRST AID MEASURES

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 131126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation:	First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.
Skin contact:	No specific health data is available for this product. If any unusual symptoms become evident, or if in doubt, contact a Poisons Information Centre or a doctor.
Eye contact:	No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.
Ingestion:	If swallowed, Do Not induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

Advice to Doctor:

Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Fire/Explosion Hazard

Dangerous Decomposition or Combustion Products

Thermal Decomposition

There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

If involved in a fire, the dehydrated components may emit oxides of carbon or Combustion Products and nitrogen, cyanides, phosgene and hydrogen chloride.

Extinguishing Media:

Carbon dioxide, dry chemical, foam and water fog.

Fire Fighting:

If a significant quantity of this product is involved in a fire, call the fire brigade.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills & Disposal

In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection.

Product spill: Sweep granules and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly.

Wash the spill area with detergent and water. Launder protective clothing before storage or re-use.

Personal Protection:

For appropriate personal protective equipment (PPE), refer Section 8. If product has dried out and the possibility of dust generation exists, wear a suitable respirator.

SECTION 7 – HANDLING AND STORAGE

Handling

When handling this product, do not eat, drink or smoke.

When mixing this product always wear a PVC or rubber apron, elbow length PVC gloves, face shield or goggles and overalls buttoned at the wrist and neck.

When spraying this product, wear a face shield or goggles

After each days use, wash gloves, face shield or goggles and overalls.

If product gets on skin, immediately wash area with soap and water.

Storage

Store in the closed, original container in a well-ventilated area as cool as possible out of direct sunlight. Keep from contact with fertilisers and seeds.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits TWA (mg/m³) STEL (mg/m³)

Exposure Limits	TWA (mg/m ³)	STEL (mg/m ³)
Diuron	10	not set

The ADI for Diuron is set at 0.007 mg/kg/day. The corresponding NOEL is set at 0.7 mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australia ADI List, Sept 2019.

Ventilation

No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimised.

Eye Protection

Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection

The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when handling this product.

Protective Material

We suggest that protective clothing be made from the following materials: rubber, **Types** PVC.

Respirator

Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	Granulated solid
Colour:	Pale, fawn coloured
Odour:	No specific odour.
Boiling Point (°C):	Not applicable
Vapour Pressure:	Not applicable
Solubility:	Dispersible

SECTION 10 – STABILITY AND REACTIVITY

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.

Conditions to Avoid

Keep away from heat, flames and sparks

Incompatibilities

Strong oxidizing agents.

Fire Decomposition

Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas. Hydrogen chloride gas, other compounds of chlorine. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death. Hydrogen cyanide poisoning signs and symptoms are weakness, dizziness, headache, nausea, vomiting, coma, convulsions and death. Death results from respiratory arrest. Hydrogen cyanide gas acts very rapidly; symptoms and death can both occur quickly.

Polymerization

This product is unlikely to undergo polymerization processes.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicity data (on Diuron technical)

Acute oral LD₅₀ for rat: 3400 mg/kg

Acute dermal LD₅₀ for rats: >2000 mg/kg

Some signs of central nervous system depression have been noted at high levels of Diuron exposure. For humans, the only reported case of acute, oral exposure to the herbicide produced no significant symptoms or toxicity.

Potential Health Effects

Acute:

- Ingestion:** Available data shows that this product is harmful, but symptoms are not available. This product is unlikely to cause any irritation problems in the short or long term.
- Eye contact:** Available data shows that this product is not harmful. However product may be irritating to eyes, but is unlikely to cause anything more than mild transient discomfort.
- Skin contact:** Available data indicates that this product is not harmful. It should present no hazards in normal use. In addition product is unlikely to cause any discomfort in normal use.
- Inhalation:** Available data indicates that this product is not harmful. In addition product is unlikely to cause any discomfort or irritation.

Carcinogen Status:

- NOHSC:** No significant ingredient is classified as carcinogenic by NOHSC.
- NTP:** No significant ingredient is classified as carcinogenic by NTP.
- IARC:** No significant ingredient is classified as carcinogenic by IARC

Chronic toxicity:

Male rats given extremely high doses of Diuron over a 2-week period showed changes in their spleen and bone marrow. Other chronic effects attributed to moderate to high doses of the pesticide over time included changes in blood chemistry, increased mortality, growth retardation, abnormal blood pigment, and anemia. When fed small amounts of Diuron in food for 2 years, animal species showed no adverse effects.

Reproductive effects:

Daily low doses of Diuron fed to female rats through three successive generations caused significantly decreased body weight of offspring in the second and third litters. The fertility rate remained unaffected. It is unlikely that Diuron will cause reproductive effects in humans at expected levels of exposure.

Teratogenic effects:

Diuron is teratogenic at high doses. Administered to pregnant rats on days 6 through 15 of gestation, it produced no birth defects in the offspring at doses of up to 125 mg/kg/day. However, doses of 250 mg/kg/day caused wavy ribs, extra ribs and delayed bone formation. There were also weight decreases in offspring at 500 mg/kg/day. There was no increase in the severity of the rib deformation at this higher dose. Pregnant mice given very high doses of Diuron (nearly 2000 mg/kg/day) exhibited reproductive and embryotoxic effects. Development effects were found in their offspring.

Mutagenic effects:

Diuron does not appear to be mutagenic. The majority of tests have shown that Diuron does not produce mutations in animal cells or in bacterial cells.

Carcinogenic effects:

Limited evidence indicates that low level exposures to Diuron does not cause cancer.

Organ toxicity:

Low doses of Diuron over extended periods of time can cause enlargement to the liver and the spleen.

Fate in Humans and Animals:

Diuron is excreted in the faeces and urine of test animals. Breakdown of the compound is similar in animals, plants and soil. Cows fed very low doses of Diuron in their diets had small amounts of residues in whole milk. Cattle fed small amounts accumulated low levels of Diuron in fat and muscle, liver and kidney.

SECTION 12 – ECOLOGICAL INFORMATION

This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

Effects on birds:

Diuron is slightly toxic to birds. In bobwhite quail, the dietary LC₅₀ is 1730 ppm. In Japanese quail and ring-necked pheasant, it is greater than 5000 ppm. The LC₅₀ is approximately 5000 ppm in mallard ducks.

Effects on aquatic organisms:

The LC₅₀ (48hour) values for Diuron range from 4.3 mg/L to 42 mg/L in fish, and range from 1 mg/L to 2.5 mg/L for aquatic invertebrates. The LC₅₀ (96 hour) is 3.5 mg/L for rainbow trout. Thus, Diuron is moderately toxic to fish and highly toxic to aquatic invertebrates.

Effects on other organisms:

Diuron is non-toxic to bees.

Environment Fate:

Breakdown in soil and groundwater: Diuron is moderately to highly persistent in soils. Residue half-lives are from 1 month to 1 year. Some pineapple fields contained residues 3 years after the last application. Mobility in the soil is related to organic matter and to the type of the residue. The metabolites are less mobile than the parent compound. In California, Diuron has been found in groundwater in the 2 to 3 ppb range. It has also been found in Ontario groundwater where it has been linked with land applications.

Breakdown in water: Diuron is relatively stable in neutral water. Microbes are the primary agents in the degradation of Diuron in aquatic environments.

Breakdown in vegetation: Diuron is readily absorbed through the root system of plants and less readily through the leaves and stems.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal: Instructions concerning the disposal of this product and its containers are given on the product label. These should be carefully followed.

SECTION 14 – TRANSPORT INFORMATION

Storage and Transport

Considered non dangerous for road and rail transport (in packaging) by the Australian Code for the Transport of

Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.

UN Number (Sea Transport): 3077
IMO Class/Packing Group: Class 9; Packing Group III
IMO Marine Pollutant: Marine Pollutant
IMO Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains Diuron)

SECTION 15 – REGULATORY INFORMATION

SUSMP Classification N/A
Packaging & Labelling READ SAFETY DIRECTIONS BEFORE OPENING OR USING

SECTION 16 – OTHER INFORMATION

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

Acronyms:

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail
CAS number Chemical Abstracts Service Registry Number
Hazchem Number Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC International Agency for Research on Cancer
NOHSC National Occupational Health and Safety Commission
SUSMP Standard for the Uniform Scheduling of Medicines & Poisons
UN Number United Nations Number
GHS Globally Harmonised System

CONTACT POINT:

Police and Fire Brigade: Dial 000
National Poisons Information Centre: Dial 13 11 26 (from anywhere in Australia)
For 24 hour emergency response: Dial 0439 933 556
Ask for Murray Goodlich