SAFETY DATA SHEET

Emergency Phone: 1800-033-882 (24 hrs)
+61 3 9663 2130 (24 hrs)
Dow AgroSciences Australia Ltd.
Frenchs Forest NSW 2086

SENTRICON™ AG TERMITE BAIT

Effective Date: 2 April 2013
Product Code: 38098

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Sentricon™ AG Termite Bait

PURPOSE: Termite Control

COMPANY IDENTIFICATION:

Dow AgroSciences Australia Ltd.
ABN 24 003 771 659
Level 5, 20 Rodborough Road,
Frenchs Forest NSW 2086

Customer Service Toll Free Number:
1800 700 096
(Mon-Fri, 8am–5pm EST)
Emergency Telephone Numbers:
Australia: 1800 033 882
Global: +61 3 9663 2130
(24 hours) (EMERGENCIES ONLY)

Transport Emergency Only Dial 000

2. HAZARDOUS IDENTIFICATIONS:

EMERGENCY OVERVIEW

Not classified as hazardous according to the criteria of NOHSC
Classified as Dangerous Goods - see Section 14 for land transport exemption.

RISK PHRASES:
None allocated.

SAFETY PHRASES:
None allocated.

3. COMPOSITION/INFORMATION ON INGREDIENTS:

Ingredient	CAS #	Content
Hexaflumuron	086479-06-3	0.5%
Cellulose	009004-34-6	>90.0 - <100.0%
Balance not contributing to hazard		<10.0%

4. FIRST AID:

Consult the Poisons Information Centre (131126) or a doctor in every case of suspected chemical poisoning.

Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury. If breathing difficulties occur seek medical attention immediately.

EYE: No exposure to briquettes likely. If dust in eyes, hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

SKIN: No exposure to briquettes likely. Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call the Poisons Information Centre or doctor for treatment advice.

INGESTION: Call the Poisons Information Centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the Poisons Information Centre or doctor. Never give anything by mouth to an unconscious person.

INHALATION: No exposure likely from the briquettes. If exposure to dust move person to fresh air. If person is not breathing, call 000 or an ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). Call the Poisons Information Centre or doctor for treatment advice.

NOTE TO PHYSICIAN: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the MSDS, and if available, the product container or label with you when calling the Poisons Information Centre or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES:

FLASH POINT: Not applicable (solid)
COMBUSTIBLE: Not combustible
FLAMMABLE LIMITS
LFL: Not determined
UFL: Not determined

Suitable extinguishing media
Water. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers.

Special hazards arising from the substance or mixture
Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide. Combustion products may include trace amounts of: Nitrogen oxides. Hydrogen fluoride. Hydrogen chloride.
Unusual Fire and Explosion Hazards: None known.

Advice for fire-fighters
Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS. Special Protective Equipment for Fire-fighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

See Section 9 for related Physical Properties

HAZCHEM: 3X

6. ACCIDENTAL RELEASE MEASURES:

ACTION TO TAKE FOR SPILLS/LEAKS: Sweep up small spills and place in a suitable container for disposal.

7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

HANDLING: Keep out of reach of children. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

STORAGE: Store in tightly closed original container in a cool, dry well-ventilated area out of direct sunlight when not in use. Do not store with food, feedstuffs, fertilizers and seeds. See product label for further handling/storage precautions relative to the end use of this product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Component	List	Type	Value
Cellulose	ACGIH	TWA	10 mg/m3
	AU OEL	TWA Inspirable dust.	10 mg/m3
Hexaflumuron	Dow IHG	TWA	0.05 mg/m3

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Personal Protection

Eye/Face Protection: Use safety glasses (with side shields). If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.
Skin Protection: Wear clean, body-covering clothing.
Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Use chemical resistant gloves classified under standard AS/NZS 2161.10: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Polyvinyl chloride ("PVC" or "vinyl"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). When prolonged or frequently repeated contact may occur, a glove is recommended to prevent contact with the solid material. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory

irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, in dusty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Particulate filter.
Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

Ventilation: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Other Information

Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian/New Zealand Standards, including:
AS/NZS 1336: Recommended practices for eye protection in the industrial environment.
AS/NZS 1337: Eye protectors for industrial applications.
AS/NZS 1715: Selection, use and maintenance of respiratory protective devices.
AS/NZS 2161: Occupational protective gloves.
AS/NZS 2210: Occupational protective footwear.
AS 2919: Industrial clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE: White briquettes
ODOUR: None
pH: 7.4 – 8.5 in 1% aqueous dilution
SOLUBILITY IN WATER: Not applicable
PARTITION COEFFICIENT: Hexaflumuron: Log P_{ow} = 5.68
CORROSIVENESS: Not corrosive
VAPOUR PRESSURE: Hexaflumuron: negligible @ 25 °C
VOLATILE MATERIALS: None present

10. STABILITY AND REACTIVITY:

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Stable under recommended storage conditions. See Storage, Section 7.

Possibility of hazardous reactions

Polymerization will not occur.

Conditions to Avoid: Active ingredient decomposes at elevated temperatures.

Incompatible Materials: Avoid contact with oxidizing materials. Avoid contact with: Strong bases.

Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include trace amounts of: Hydrogen chloride. Hydrogen fluoride. Nitrogen oxides.

11. TOXICOLOGICAL INFORMATION:

Acute Toxicity

Ingestion
Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.
As product: Single dose oral LD50 has not been determined. Based on information for component(s): Estimated. LD50, rat > 5,000 mg/kg
Aspiration hazard
Based on physical properties, not likely to be an aspiration hazard.
Dermal
Prolonged skin contact is unlikely to result in absorption of harmful amounts.
As product: The dermal LD50 has not been determined. Based on information for component(s): Estimated. LD50, rat > 2,000 mg/kg
Inhalation
No adverse effects are anticipated from single exposure to dust. Based on the available data, narcotic effects were not observed. Based on the available data, respiratory irritation was not observed.
As product: The LC50 has not been determined.
Eye damage/eye irritation
Solid or dust may cause irritation or corneal injury due to mechanical action.
Skin corrosion/irritation
Brief contact is essentially nonirritating to skin.
Sensitization
Skin
Based on information for component(s): Did not cause allergic skin reactions when tested in guinea pigs.
Respiratory
No relevant data found.

Repeated Dose Toxicity
For the active ingredient(s): In animals, effects have been reported on the following organs: Blood. Liver. Spleen. May cause methemoglobinemia, thereby impairing the blood's ability to transport oxygen.
Chronic Toxicity and Carcinogenicity
Contains component(s) which did not cause cancer in laboratory animals.
Developmental Toxicity
Contains component(s) which did not cause birth defects or any other fetal effects in lab animals.
Reproductive Toxicity
For the active ingredient(s): In animal studies, did not interfere with reproduction. For the major component(s): In animal studies, cellulose has been shown to interfere with fertility and reproduction as a result of nutritional deficiencies associated with extremely high dietary concentrations of cellulose.
Genetic Toxicology
For the active ingredient(s): In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

12. ECOLOGICAL INFORMATION:

Toxicity

Data for Component: **Hexaflumuron**
Material is very toxic to aquatic organisms (LC50/EC50/IC50 below 1 mg/L in the most sensitive species). Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg). Material is slightly toxic to birds on a dietary basis (LC50 between 1001 and 5000 ppm).
Fish Acute & Prolonged Toxicity
LC50, Oncorhynchus mykiss (rainbow trout)static test96 h: > 0.5 mg/l
LC50Lepomis macrochirus (Bluegill sunfish)96 h > 100 mg/l
Aquatic Invertebrate Acute Toxicity
EC50, Daphnia magna (Water flea), 48 h, immobilization: 0.000111 mg/l
Aquatic Plant Toxicity
ErC50, Pseudokirchneriella subcapitata (green algae), 96 h> 3.2 mg/l
Toxicity to Micro-organisms
EC50, activated sludge test (OECD 209), Respiration inhibition, 3 h > 100 mg/l
Aquatic Invertebrates Chronic Toxicity Value
Daphnia magna (Water flea), 21 d, NOEC:0.000001 mg/l
Toxicity to Above Ground Organisms
oral LD50, Colinus virginianus (Bobwhite quail) > 2000 mg/kg bodyweight.
dietary LC50, Colinus virginianus (Bobwhite quail): 4,786 mg/kg
contact LD50, Apis mellifera (bees) > 100 micrograms/bee
oral LD50, Apis mellifera (bees) > 100 micrograms/bee
LD50 > 2,000 mg/
Toxicity to Soil Dwelling Organisms
LC50, Eisenia fetida (earthworms), 14 d 880 mg/kg
Data for Component: **Cellulose**
Material is not classified as dangerous to aquatic organisms (10 < LC50/EC50/IC50/LL50/EL50 <= 100 mg/L and NOEC > 1mg/l in the most sensitive species).
Fish Acute & Prolonged Toxicity
LC50Fish, 96 h > 100 mg/l
Aquatic Plant Toxicity
EC50, algae, Growth rate inhibition 96 h > 100 mg/l**Toxicity to Micro-organisms**LC50Bacteria > 100 mg/l
Persistence and Degradability
Data for Component: **Hexaflumuron**
Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Stability in Water (1/2-life):
pH 5;Stable
270 d; pH 7;Estimated.
22 d; pH 9;Estimated.

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
76 %	28 d	OECD 301D Test	pass

Indirect Photodegradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
2.105E-11 cm3/s	6.1 h	Estimated.

Theoretical Oxygen Demand: 4.72 mg/mg
Data for Component: **Cellulose**
Biodegradation rate may increase in soil and/or water with acclimation.

Theoretical Oxygen Demand1.18 mg/mg

Bioaccumulative potential

Data for Component: **Hexaflumuron**
Bioaccumulation: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).
Partition coefficient, n-octanol/water (log Pow): 5.68 Estimated.
Bioconcentration Factor (BCF): 3,800 - 5,600; Fish; Measured
Data for Component: **Cellulose**
Bioaccumulation: No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).

Mobility in soil

Data for Component: **Hexaflumuron**
Mobility in soil: Potential for mobility in soil is slight (Koc between 2000 and 5000).
Partition coefficient, soil organic carbon/water (Koc): 3,096 - 41,170 Estimated.
Henry's Law Constant (H): 2.9E-05 Pa*m3/mole.; 25 °C Measured
Data for Component: **Cellulose**
Mobility in soil: No data available.

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHOD: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION:

DANGEROUS GOODS CLASSIFICATION
ROAD AND RAIL TRANSPORT:
Not dangerous goods under the ADG code when being transported in IBCs or other receptacles < 500 L (kg), (Special Provision AU01).

SEA AND AIR TRANSPORT: Classified as dangerous goods for transport by sea and air in accordance with the International Maritime Dangerous Goods Code (IMDG) and the International Air Transport Association (IATA) Dangerous Goods Regulation.

UN No: 3077
Class: 9
Packing group: III
SHIPPING NAME: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (HEXAFLUMURON) Marine pollutant

15. REGULATORY INFORMATION:

APVMA APPROVAL NUMBER: 57813

POISON SCHEDULE: Exempt

16. OTHER INFORMATION:

Glossary
ACGIH: American Conference of Governmental Industrial Hygienists.
EC_{50}: median effective concentration. Statistically derived concentration of a substance in an environmental medium expected to produce a certain effect in 50% of test organisms in a given population under a defined set of conditions.
LD_{50} - Lethal Dose-50%. The dose of a chemical that will kill 50% of the test animals receiving it.
TWA - Time Weighted Average. The average concentration of a chemical in air over the total exposure time - usually an 8 hour work day.

References
AS/NZS 1715-1994
Australian Dangerous Goods Code
International Maritime Dangerous Goods Code.
International Air Transport Association (IATA) Dangerous Goods Regulation
NOHSC Hazardous Substances Information System.

VERSION CONTROL
Replaces version dated: 1 Apr 2008
Sections amended: 4, 5,8, 11,14 and 16.
Product Code: GF-1407

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FOR FURTHER PRODUCT INFORMATION CALL DOW AGROSCIENCES CUSTOMER SERVICE REPRESENTATIVES TOLL FREE 1800 700 096 DURING BUSINESS HOURS.

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