

GENEREX (AUST) PTY LTD

MATERIAL SAFETY DATA SHEET

I IDENTIFICATION

Product Name: Generex Bensulfuron 600WG Herbicide
Chemical Name: Bensulfuron
Chemical Class: Sulfonyl Urea
Hazchem Code: N/A
UN No.: N/R
Dangerous Goods Class: N/A
Sub Risk Class: N/A
Poison Schedule: Unscheduled
Use: For the control of Arrowhead, Dirty Dora and Star Fruit in aerially sown rice.

Ingredients:

Component	CAS No:	Proportion:
Bensulfuron methyl	83055-99-6	60%
Inert Ingredients		40%

Physical Appearance & Properties:

Colour: light tan
Odour: sweet, woody
Form: dry flowable
Autoignition Temp: 400° C
pH: 6.0- 6.5 (1% water slurry)

II HEALTH HAZARD DATA

Not Classified as Hazardous According to Criteria of WorkSafe Australia.

Acute Effects:

Eye: Product will irritate the eyes.
Skin: Slight to moderately toxic by absorption through skin. Not a primary skin irritant or a skin sensitiser.

Inhaled: Very low toxicity by inhalation.

Swallowed: Very low toxicity by ingestion.

Chronic Effects:

None established for formulated product. Bensulfuron methyl:

Chronic dietary administration of Bensulfuron methyl to rats, mice and dogs resulted in a similar toxicity profile. Chronic exposure of male rats at the high dose produced mild anaemia which was not observed in female rats or in other species. Liver effects were observed in each of these species. In rats and mice, these effects included slight liver weight increases, enlarged hepatocytes and changes in appearance and staining properties of hepatocytes when prepared for histological examination. These changes were minimal to mild in severity, were more pronounced among males, were localised within the centrilobular liver region, and were considered to be associated with an adaptive response of the liver to an increased demand for compound metabolism and clearance. There were no clinical, chemical or histopathological indices of liver toxicity or dysfunction associated with these effects in rats or mice. Normal liver functions were not significantly compromised in this treatment group. In addition to the liver effects observed for rats and mice, chronic exposure of dogs resulted in clinical pathological and histopathological evidence of slight to minimal hepatotoxicity at the high dose. Normal liver functions were not significantly compromised in this treatment group. The non observable effect level (NOEL) following chronic dietary administration were 750 ppm, 750 ppm and 2500 ppm for the dog, rat and mouse, respectively. Bensulfuron methyl was non-oncogenic by chronic dietary administration. Negative results in five of five tests for mutagenicity and genetic toxicity support this observation. There were no reproductive effects in rats from dietary administration; therefore, the NOEL was greater than 7,500 ppm, the highest dose tested. Bensulfuron methyl was non-teratogenic in the rat and rabbit. Foetotoxicity or developmental variations were observed at excessive maternal doses. The NOELs for these observations were 300 mg/kg and 500 mg/kg for the rabbit and rat, respectively. Not mutagenic in the Ames bacterial assay and the Chinese Hamster ovary cell assay. Negative in the *in vivo* bone marrow cytogenetic assay, the DNA repair assay with rat liver cells, and the *in vitro* chromosome aberration test in human lymphocytes.

Other Health Effects:

Significant skin permeation, and systemic toxicity, after contact appears unlikely. Based on data from animal testing, high ingestion exposures may lead to abnormal liver function as detected by laboratory tests. Otherwise no acceptable information is available to confidently predict the effects of excessive human exposure to this compound.

First Aid:

Eye: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Seek Medical attention if necessary .

Skin: In case of contact, immediately wash skin with soap and plenty of water. Wash contaminated clothing before re-use.

Inhaled: No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. However, seek Medical attention if necessary.

Swallowed: If swallowed seek medical attention.

Advice to Doctor: No specific requirements. Treat symptomatically.

Toxicity Data: Bensulfuron methyl:

Acute oral LD50 (rat): > 5000 mg/kg

Acute dermal LD50 (rabbit): > 2000 mg/kg

Acute 4 hr inhalation LC50(rat): > 5.0 mg/L (bensulfuron methyl)

III PRECAUTIONS FOR USE

Exposure Standards:

None established for formulated product. Bensulfuron methyl:

Engineering Controls:

Use only with adequate ventilation

Personal Protection:

Product will irritate the eyes. DO NOT inhale dust. When preparing spray and using the prepared spray wear goggles. Wash hands, face and skin thoroughly with soap and water after use and before eating, drinking or smoking. Wash goggles and protective clothing after each day's use.

Flammability: Not a fire and explosion hazard.

Environment: 96hr LC₅₀ (rainbow trout and bluegill sunfish): > 450 mg/L 48hr LC₅₀ (Daphnia): > 150 mg/L 8 day LC₅₀ (bobwhite quail and mallard duck): > 5620 mg/kg (Bensulfuron methyl)

IV SAFE HANDLING INFORMATION

Storage & Transport:

DO NOT consume food, drink or tobacco in the areas where they may become contaminated with this material. Store in well ventilated area. Use a totally enclosed system.

Spills and Disposal:

Review FIRE AND EXPLOSION HAZARDS and SAFETY PRECAUTIONS before proceeding with cleanup. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. Dyke spill.

Prevent liquid from entering sewers, waterways or low areas. Shovel or sweep up.

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State, and local regulations. DO NOT flush to surface water or sanitary sewer system. Do not reuse container. Triple rinse the container then puncture and dispose of in a sanitary landfill, or by another approved method. Do not burn empty containers or product.

Reactivity Data:

Stable at normal temperatures and storage conditions. No incompatibilities reasonably foreseeable. Decomposition will not occur. Polymerisation will not occur.

Fire/Explosion Hazard:

Not a fire and explosion hazard. Like most organic powders, or crystals, under severe dusting conditions, this material may form explosive mixtures in air. Evacuate personnel to a safe area. Wear self-contained breathing apparatus and full protective equipment. Suitable extinguishing media: water spray, dry powder, foam, carbon dioxide (CO₂). On small fires, if area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the contamination hazard.

IV OTHER INFORMATION

IN CASE OF EMERGENCY: DIAL 000
IF INEFFECTIVE: PHONE POISONS INFORMATION CENTRE

SPECIALIST COMPANY ADVICE:

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