

Du Pont (Australia) Ltd. A.C.N. 000 716 469
168 Walker Street North Sydney, N.S.W. 2060
Telephone (02) 9923 6111 Facsimile (02) 9923 6132
24hr Transport Emergency Number (02) 9963 1301 Medical Emergency 1800-674415

MATERIAL SAFETY DATA SHEET

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N/R In Product Identification section means Not Regulated as a Dangerous Good and no UN number is allocated.

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ISSUED DUPONT 1/12/1998

PRODUCT: DUPONT HARMONY® M HERBICIDE

Not Classified as Hazardous According to Criteria of WorkSafe Australia

PRODUCT IDENTIFICATION

UN No: N/R Poisons: S5 (Fed)

Tradenames: Harmony® M Herbicide
Manuf.: DuPont
ManCode:

Use:
For the control of broadleaf weeds in wheat, barley and triticale.

Ingredients:	CAS No:	Proportion:
Thifensulfuron methyl	79277-27-3	68.2%
Metsulfuron methyl	74223-64-6	6.8%
Inert Ingredients		25%

Physical Description / Properties

Appearance:
Odour: None
Colour: Tan
Form: Solid dry flowable

Other Properties:
Bulk Density: 0.58 - 0.68 g/cc
Chemical family: Sulfonylurea

HEALTH HAZARD INFORMATION

Acute Effects

Eye:
Mild eye irritant.

Skin:
Only slight to moderate toxicity. Not a primary skin irritant, not a skin sensitiser.

Inhaled:
Low toxicity.

Swallowed:
Low level of toxicity.

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PRODUCT: DUPONT HARMONY® M HERBICIDE

HEALTH HAZARD INFORMATION (Continued)

Chronic Effects

None established for formulated product.

Thifensulfuron methyl: No oncogenic effects observed in the 18 month mouse, 2 year rat, or 1 year dog feeding studies. Lower body weights and weight gains were observed for rats fed the highest dietary concentrations, 2500 ppm. Slightly lower serum sodium concentrations, which were not biologically significant, were observed in rats fed the 500 and 2500 ppm. The no-observable-effect levels (NOEL) were 500 ppm and 25 ppm for the body weight and serum sodium effects, respectively. There were no compound-related effects in mice fed for 18 months with diets that contained the active ingredient. The NOEL was 7500 ppm, the highest dose tested. Slightly lower body weights and higher liver weights were observed for dogs fed for 1 year with diets that contained 7500 ppm. There were no microscopic or functional changes associated with these effects. The NOEL was 750 ppm. No effect on rat reproduction or lactation at any dose tested (highest dose tested 2500 mg/kg). There were no gross or microscopic compound-related effects on the offspring at any dose. Not mutagenic in the Ames bacterial assay; the *in vitro* Chinese Hamster Ovary Assay; the *in vitro* unscheduled DNA synthesis; the *in vivo* cytogenetic assay; or in the mouse micronucleus assay. No teratogenic effects in rats at 800 mg/kg/day (highest dose tested), nor in rabbits at 650 mg/kg/day (highest dose tested).

Metsulfuron methyl: No oncogenic effects observed in 18 month mouse and 2 year rat feeding studies. Slightly decreased parental body weight at 5000 ppm. No effect on rat reproduction or lactation at any dose tested (highest dose tested 5000 ppm). Not teratogenic or embryo-foetal toxic by gavage in rats (highest dose tested 1000 mg/kg) or by gavage in rabbits (highest dose tested 700 mg/kg). Not mutagenic in Ames bacterial assay; Chinese Hamster Ovary assay, or DNA rat liver repair assay; positive in the *in vitro* Chinese Hamster Ovary Cell cytogenetic assay but negative in the *in vivo* rat bone marrow cytogenetic assay.; ovary assay; the *in vitro* unscheduled DNA synthesis; the *in vivo* cytogenetic assay.

Other Health Effects:

Overexposure to thifensulfuron methyl by skin contact may initially include skin irritation with discomfort or rash. Significant skin permeation, and systemic toxicity, after contact appears unlikely. There are no reports of human sensitisation. Overexposure by eye contact may initially include eye irritation with discomfort, tearing, or blurring of vision. Overexposure by inhalation may initially include irritation of the upper respiratory passages, with coughing and discomfort. No data is available to confidently predict the effects of overexposure of humans, however, based on animal studies, overexposure by inhalation, ingestion, or skin or eye contact may initially include eye irritation with discomfort, tearing, or blurring of vision; irritation of the upper respiratory passages. Repeated dermal exposure may lead to skin irritation with discomfort or rash.

First Aid**Eye:**

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

Skin:

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

Inhaled:

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

Swallowed:

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

Advice to Doctor:

No specific requirements. Treat symptomatically.

Toxicity Data:

Acute Oral LD₅₀(rat): > 5000 mg/kg

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

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PRODUCT: DUPONT HARMONY® M HERBICIDE**PRECAUTIONS FOR USE****Exposure Standards:**

Thifensulfuron methyl:

AEL (Du Pont): 5 mg/m³ (8 and 12 hr TWA)

Metsulfuron methyl:

AEL (Du Pont): 10 mg/m³ (8 and 12 hr TWA)**Engineering Controls:**

Use only with adequate ventilation.

Personal Protection:

May irritate the eyes and skin. Avoid contact with eyes, skin or clothing. Avoid breathing dust, vapours or spray mist. Wash hands, face and skin thoroughly with soap and water after use. Wash all protective clothing after each days use.

Flammability:

May be ignited by heat or open flame. Keep away from heat, sparks or flames.

Environment:96 hr LC₅₀(rainbow trout): > 100 mg/L.**SAFE HANDLING INFORMATION****Storage and Transport:**

Keep container tightly closed. DO NOT consume food, drink or tobacco in the areas where they may become contaminated with this material. Store in well ventilated area.

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. If spill area is on ground near valuable plants and trees, remove top 50 mm of soil after initial clean 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 other approved methods. Do not burn empty container 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:

Flammable limits in Air, % by volume: LEL 0.173 g/L. 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.

ADDITIONAL INFORMATION**Contact Points:**

For sales, technical, and product related enquiries contact DuPont's North Sydney office on (02) 9923 6111. Outside the Sydney metropolitan area 1800 252 997 is a toll free number to North Sydney 10Office. To assist communications, ask for the Customer Service, Technical, or Marketing personnel for the product family relative to the inquiry.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

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