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DuPont
Material Safety Data Sheet

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M0000682 "DuPont" "THROTTLE" XP HERBICIDE
Revised 17-JAN-2007

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"DuPont", "THROTTLE" are trademarks of DuPont.

Tradenames and Synonyms

THROTTLE 75
DPX-QY998
SULFENTRAZONE
SULFOMETURON METHYL
CHLORSULFURON

Company Identification

MANUFACTURER/DISTRIBUTOR
DuPont
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-800-441-7515 (outside the U.S.
302-774-1000)
Transport Emergency : CHEMTREC 1-800-424-9300(outside U.S.
703-527-3887)
Medical Emergency : 1-800-441-3637 (outside the U.S.
302-774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
SULFENTRAZONE N-[2,4-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]methanesulfonamide	122836-35-5	48
SULFOMETURON METHYL (Methyl 2-[[[(4,6-dimethyl-2-pyrimidinyl)-amino]carbonyl]amino]sulfonyl]benzoate)	74222-97-2	18
*CHLORSULFURON [2-Chloro-N[(4-methoxy-6-methyl-1,3,5,-triazin-2yl)aminocarbonyl] benzenesulfonamide	64902-72-3	9
INERT INGREDIENTS (Including percentages of the following):		25
* TOLUENE	108-88-3	<2.4

(COMPOSITION/INFORMATION ON INGREDIENTS - Continued)

* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

HAZARDS IDENTIFICATION

Emergency Overview

CAUTION! Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

Potential Health Effects

Based on data from components, eye contact with DuPont Throttle XP Herbicide may cause eye irritation with discomfort, tearing, or blurring of vision.

Based on data from components, skin contact with DuPont Throttle XP Herbicide may cause defatting of the skin with itching, redness or rash.

Based on data from components, ingestion DuPont Throttle XP may lead to reversible decreases in red blood cell counts.

CHRONIC OVEREXPOSURE

TOLUENE

Toluene is a trace impurity in Throttle XP and exposures during the handling and use of this product are estimated to be far below acceptable exposure values (e.g., TLV).

Excessive, repeated and/or prolonged inhalation or ingestion exposure to Toluene in far excess of the TLV may cause abnormal liver or kidney function and central nervous system effects (which may include dizziness, lightheadedness, headache). Gross overexposures resulting from inhalant abuse of toluene may result in more pronounced CNS effects progressing to loss of consciousness and death.

The combined results from laboratory animal studies and epidemiology studies of workers from the printing and other industries where higher toluene exposures are likely, suggest that it is not a carcinogen, does not cause heritable genetic damage and is not a reproductive or developmental toxin.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

First Aid

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye 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 eye. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call poison control center 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 poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

FIRE FIGHTING MEASURES

Flammable Properties

Slightly combustible. May support combustion at elevated temperatures. Thermal decomposition and burning may form toxic by-products.

Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air.

Extinguishing Media

Water Fog, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Isolate area. Evacuate personnel to a safe area. Wear self-contained breathing apparatus. Wear full protective equipment. Runoff from fire control may be a pollution hazard.

(FIRE FIGHTING MEASURES - Continued)

If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self-contained breathing apparatus and full protective equipment. Use water spray. Control runoff.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Emergency Response - Chemical resistant coveralls, waterproof gloves, waterproof boots and face/eye protection. If dusting occurs, use NIOSH approved respirator protection.

Initial Containment

Dike spill. Prevent material from entering sewers, waterways, or low areas.

Follow applicable Federal, State/Provincial and Local laws/regulations.

Keep unprotected persons and animals out of the area.

Spill Clean Up

Avoid causing dust. Shovel, vacuum or scoop up to a metal drum for disposal. If liquid, dike and allow to solidify or soak up with sand. All flushing and clean-up residuals should be collected for proper disposal to prevent soil and surface, ground and sewer water contamination. Do not allow to contaminate ground or surface water systems.

To clean and neutralize spill area, tools and equipment, wash with a suitable solution of caustic/soda ash and an appropriate alcohol (i.e., ethanol, methanol or isopropanol). Follow this by washing with a strong soap and water solution. Absorb (clay, sand or soil) any excess liquid and add to the drums of waste already collected. Repeat if necessary.

For minor spills, leaks, etc., follow all precautions indicated on the product label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call 1-800-441-3637 day or night.

HANDLING AND STORAGE

Handling (Personnel)

USERS SHOULD: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothes before reuse.

Storage

Do not contaminate water, food or feed by storage or disposal. Store product in original container only. Store in a cool, dry place.

Keep out of reach of children and animals.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation. Keep container tightly closed.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Personal Protective Equipment

Always follow the label instructions when handling this product.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves (such as Natural Rubber, Section Category A).
- Shoes plus socks.
- Protective eyewear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Exposure Guidelines

Applicable Exposure Limits

SULFENTRAZONE

AEL * (DuPont) : 2 mg/m³, 8 & 12 Hr. TWA, total dust

SULFOMETURON METHYL

PEL (OSHA) : None Established

TLV (ACGIH) : 5 mg/m³, 8 Hr. TWA, A4AEL * (DuPont) : 10 mg/m³, 8 & 12 Hr. TWA
total dust

CHLORSULFURON

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

AEL * (DuPont) : 10 mg/m³, 8 & 12 Hr. TWA

TOLUENE

PEL (OSHA) : 200 ppm, 8 Hr. TWA

300 ppm, Ceiling

500 ppm - 10 Min. Max.

TLV (ACGIH) : 50 ppm, 188 mg/m³, 8 Hr. TWA, Skin, A4
Notice of Intended Changes (2006)

20 ppm, 8 Hr. TWA, A4

AEL * (DuPont) : 50 ppm, 8 & 12 Hr. TWA

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Form : Solid granules
 Odor : Slight - sour
 Color : Light brown granular blend
 pH : 6.5 (1% aqueous solution)
 Bulk Density : 0.683 g/mL (Tapped)

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

None reasonably foreseeable.

Decomposition

Decomposition will not occur.

(STABILITY AND REACTIVITY - Continued)

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

DuPont Throttle XP

Based on animal data from components, Throttle XP is a moderate eye irritant, a slight skin irritant, but is not a skin sensitizer.

SULFENTRAZONE XP

Oral LD50: 2416 mg/kg in rats
Dermal LD50: > 5000 mg/kg in rabbits
Inhalation LC50: > 0.9 mg/L (ground state)

SULFENTRAZONE TECHNICAL

Inhalation 4 hour LC50: > 4.13 mg/L in rats

SULFOMETURON METHYL 75

Inhalation 4 hour LC50: > 5.3 mg/L in rats
Skin absorption LD50: > 5000 mg/kg in rabbits
Oral LD50: > 5000 mg/kg in rats

Chlorsulfuron 75DF

Oral LD50: > 5000 mg/kg in rats
Skin Absorption LD50: > 2000 mg/kg in rabbits

Chlorsulfuron

Inhalation 4 hour LC50: > 5.5 mg/L in rats

SULFENTRAZONE

Repeated dosing with Sulfentrazone by ingestion produced altered hematology, tremors, increased spleen and liver weights, and microscopic liver changes.

Chronic ingestion of Sulfentrazone did not cause carcinogenicity.

Exposure of pregnant rats to Sulfentrazone produced developmental effects including reduced fetal body weights, delayed skeletal ossification, bone abnormalities, and increased resorptions in the absence of maternal toxicity. Fetal effects occurred in the absence of maternal toxicity.

Developmental effects were observed in rabbits administered Sulfentrazone only at maternally toxic doses.

Reproductive tests show decreased litter size, decrease in growth and survival of offspring, and decrease in male reproductive organs in the presence of parental toxicity.

(TOXICOLOGICAL INFORMATION - Continued)

Sulfentrazone was nonmutagenic and nongenotoxic based on results of a battery of tests in bacterial and mammalian cell cultures and in animals.

SULFOMETURON METHYL

Repeated oral studies with the active ingredient, Sulfometuron Methyl, caused decreased body weight gain, liver changes, red blood cell hemolysis, and altered white blood cell counts. Long-term exposure caused mild hemolytic effects, decreased body weight, alteration of clinical chemical parameters, and changes in the bile duct.

Animal testing indicates that the active ingredient, Sulfometuron Methyl, does not have carcinogenic effects. In developmental toxicity studies, no effects were observed on the offspring. In a two generation rat reproduction study with the active ingredient, Sulfometuron Methyl, decreased numbers of pups were observed at a maternally toxic dose. There were no effects observed in the absence of maternal toxicity.

Chlorsulfuron

The effects in animals from repeated exposures by inhalation to Chlorsulfuron include decreased weight gain, reversible kidney and spleen effects, and bone marrow changes.

Repeated oral dosing caused decreased weight gain, and hematological and clinical chemical changes. Long-term dosing resulted in decreased body weight gain and slight hematological changes.

Animal testing indicates that Chlorsulfuron, the active ingredient, did not show carcinogenic or reproductive effects. Developmental toxicity has been observed but only at maternally toxic dose levels.

Chlorsulfuron did not produce genetic damage in bacterial or mammalian cell cultures. It did not produce heritable genetic damage.

ECOLOGICAL INFORMATION

Ecotoxicological Information

AQUATIC TOXICITY:

CHLORSULFURON

96 hour LC50 - Sheepshead minnow: > 980 mg/L.

96 hour LC50 - Bluegill sunfish: > 128 ppm.

96 hour LC50 - Rainbow trout: > 122 ppm.

48 hour EC50 - Daphnia magna: > 112 ppm.

AVIAN TOXICITY:

CHLORSULFURON

Acute Oral LD50 - Mallard Duck: > 5000 mg/kg.

Acute Oral LD50 - Bobwhite Quail: > 5000 mg/kg > 112 ppm.

(ECOLOGICAL INFORMATION - Continued)

AQUATIC TOXICITY:

SULFOMETURON METHYL

48 hour NOEC - Daphnia magna: > 150 mg/L.

96 hour LC50 - Rainbow trout: > 148 mg/L.

96 hour LC50 - Bluegill sunfish: > 150 mg/L.

AVIAN TOXICITY:

SULFOMETURON METHYL

Acute Dietary LC50 - Mallard Duck: > 5000 ppm.

Acute Dietary LC50 - Bobwhite Quail: > 5620 ppm.

AQUATIC TOXICITY:

SULFENTRAZONE

96 hour LC50 - Bluegill sunfish: 93.8 mg/L.

96 hour LC50 - Rainbow trout: > 120 mg/L.

AVIAN TOXICITY:

SULFENTRAZONE

LD50 - Bobwhite Quail: > 2250 mg/kg.

LC50 - Bobwhite Quail: > 5620 ppm.

LC50 - Mallard Duck: > 5620 ppm.

AQUATIC TOXICITY:

TOLUENE

Moderately toxic.

96 hour LC50 - Fathead minnows: 31.7 mg/L

AQUATIC TOXICITY

CHLORSULFURON

120 hour EC50, Freshwater algae: 0.05 ppm.

AVIAN TOXICITY

CHLORSULFURON

Short term Dietary LC50 - Mallard Duck: > 5000 ppm

Short term Dietary LC50 - Bobwhite Quail: > 5620 ppm

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

Do not contaminate water supply, food or feed by storage or disposal.

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

(DISPOSAL CONSIDERATIONS - Continued)

ENVIRONMENTAL HAZARDS

This herbicide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Ground Water Advisory: See product label for application instructions relating to environmental precautions.

Surface Water Advisory: See product label for application instructions relating to environmental precautions.

Container Disposal

For Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

For Fiber Sacks: Completely empty fiber sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration if allowed by State and local authorities.

For Fiber Drums With Liners: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Container Refilling and Disposal (For Containers up to 250 gal): This is a refillable container. If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. If the container is not to be refilled, triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by State and local authorities. If burned, keep out of smoke. Refer to the product label for additional instructions.

Container Disposal for Bulk Containers: The container must

(DISPOSAL CONSIDERATIONS - Continued)

only be refilled with this pesticide product. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Do not transport if the container is damaged or leaking. Disposal of the container must be in compliance with State and local regulations. Refer to the product label for additional instructions.

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO
Proper Shipping Name : NOT REGULATED

REGULATORY INFORMATION

U.S. Federal Regulations

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes
Chronic : Yes
Fire : No
Reactivity : No

In the United States this product is regulated by the US Environmental Protection Agency under the Federal Insecticide, Fungicide and Rodenticide Act. It is a violation of federal law to use this product in a manner inconsistent with its labeling.

EPA Reg. No. 352-725

SARA/CERLA Reportable Quantity (RQ):
Toluene (1000 lbs.)

State Regulations (U.S.)

*****ATTENTION*****

CALIFORNIA PROPOSITION 65

THIS PRODUCT CONTAINS CHLORSULFURON, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

OTHER INFORMATION

NFPA, NPCA-HMIS

NFPA Rating	
Health	: 2
Flammability	: 1
Reactivity	: 0

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.

Responsibility for MSDS: DuPont Crop Protection
Address : Wilmington, DE 19898
Telephone : 1-888-638-7668

Indicates updated section.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS