



DuPont  
Material Safety Data Sheet

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M0000325 "VELPAR" DF Herbicide  
Revised 13-APR-1998 Printed 18-MAY-1998  
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CHEMICAL PRODUCT/COMPANY IDENTIFICATION  
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Material Identification

VELPAR is a registered trademark of DuPont.

Corporate MSDS Number : DU008210

Company Identification

MANUFACTURER/DISTRIBUTOR  
DuPont  
1007 Market Street  
Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-800-441-7515  
Transport Emergency : CHEMTREC 1-800-424-9300  
Medical Emergency : 1-800-441-3637

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COMPOSITION/INFORMATION ON INGREDIENTS  
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Components

Material	CAS Number	%
*HEXAZINONE (3-cyclohexyl-6-(dimethylamino)-1-methyl-1,3,5- triazine-2,4(1H,3H)-dione)	51235-04-2	75
INERT INGREDIENTS		25

\* 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.

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HAZARDS IDENTIFICATION  
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# Emergency Overview

DANGER! Causes eye damage. Corrosive, causes irreversible eye damage.

## (HAZARDS IDENTIFICATION - Continued)

## # Potential Health Effects

## HUMAN HEALTH EFFECTS OF OVEREXPOSURE TO HEXAZINONE:

Overexposure to hexazinone by eye contact may initially include eye irritation with discomfort, tearing, or blurring of vision.

Ingestion may include abnormal liver function as detected by laboratory tests.

Significant skin permeation and systemic toxicity after contact appears unlikely. Individuals with preexisting diseases of the liver may have increased susceptibility to the toxicity of excessive exposures.

## 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.

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FIRST AID MEASURES  
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## # First Aid

## EYE CONTACT

Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

## SKIN CONTACT

Flush skin with water after contact. Wash contaminated clothing before reuse.

## INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

## INGESTION

If swallowed, call a physician or Poison Control Center. Do not induce vomiting. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.

## # Notes to Physicians

Probable mucosal damage may contraindicate the use of gastric lavage.

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FIRE FIGHTING MEASURES  
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## Flammable Properties

Not a fire or explosion hazard.

## Extinguishing Media

Use media appropriate for surrounding material.

## # Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment.

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.

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ACCIDENTAL RELEASE MEASURES  
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## # 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.

## Spill Clean Up

Shovel or sweep up.

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HANDLING AND STORAGE  
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## Handling (Personnel)

Do not get in eyes. Avoid breathing dust. Avoid contact with skin. Avoid contact with clothing.

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

## (HANDLING AND STORAGE - Continued)

## # Storage

Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

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EXPOSURE CONTROLS/PERSONAL PROTECTION  
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## Engineering Controls

Use only with adequate ventilation.

## Personal Protective Equipment

Always follow the label instructions when handling this product.

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.  
Shoes plus socks.  
Protective eyewear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. 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.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

Coveralls.  
Waterproof gloves.  
Shoes plus socks.  
Protective eyewear.

## Exposure Guidelines

## Applicable Exposure Limits

HEXAZINONE  
PEL (OSHA) : None Established  
TLV (ACGIH) : None Established  
AEL \* (DuPont) : 10 mg/m<sup>3</sup>, 8 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.

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PHYSICAL AND CHEMICAL PROPERTIES  
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## Physical Data

Odor : Acrid (slight).  
Form : Dry Flowable Granules.  
Color : Tan (light).  
pH : 8.4 (1% wt/wt in water)  
Density : 0.58 g/mL

Solubility in Water : Water Dispersible

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STABILITY AND REACTIVITY  
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## Chemical Stability

Stable at normal temperatures and storage conditions.

## Incompatibility with Other Materials

Incompatible or can react with strong bases.

## Decomposition

Decomposition will not occur.

## Polymerization

Polymerization will not occur.

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TOXICOLOGICAL INFORMATION  
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## Animal Data

Acute Oral LD50 : calculated to be 1310 mg/kg in rats.

Acute Dermal LD50 : > 5000 mg/kg in rabbits.

Inhalation 4 hour LC50 : > 5.2 mg/L in rats.

Eye Irritation: In tests with rabbits, product caused conjunctival chemosis, conjunctival redness, and corneal opacity. Positive irritant effects were present in 1 rabbit 21 days after treatment.

Skin Irritation and Sensitization: According to criteria established by the U.S. EPA this product is considered to be a moderate skin irritant. According to criteria established by EEC Directive 93/21 this product can be classified a non-irritant. Product is not a skin sensitizer in tests on guinea pigs.

OTHER STUDIES - Hexazinone

## (TOXICOLOGICAL INFORMATION - Continued)

Oral (rat): In a 2-year feeding study with the 90% powder, the no-observable-effect level (NOEL) was 200 ppm a.i.; nutritional and body weight effects were seen in females at 1000 ppm a.i. and in both sexes at 2500 ppm a.i. Biochemical effects were noted in both sexes at 2500 ppm a.i.

Oral (mouse): In a 2-year feeding study with technical material, the no-observable-effect level (NOEL) was 200 ppm. Decreased body weight gain was observed in both sexes at 2500 ppm and 10000 ppm. This effect was severe at 10000 ppm, the highest level tested. Non-neoplastic liver effects were noted in males at 2500 ppm and in both sexes at 10000 ppm. Based on recent pathology review, hyperplastic liver nodules diagnosed at 10000 ppm when this study was initially conducted have been reclassified as liver adenomas. This effect was only significant among female mice in this dose group. This change reflects the current scientific consensus regarding the classification of this benign lesion in the mouse liver.

Oral (dog): In a 1-year feeding study with technical material, the NOEL was 200 ppm. Reduced food consumption and body weight gains were significant at the high dose, 6000 ppm. These nutritional effects were associated with mild but reversible changes in hematological parameters at the high dose. Increased liver weights and other non-neoplastic liver effects as indicated by histopathology and changes in clinical chemical parameters were observed at 1500 and/or 60000 ppm.

Reproduction (rat): In a 3-generation, 3-litter study with 90% powder, no adverse reproduction or lactation effects were seen at any level; slightly depressed average weanling weights were noted in the second and third litters at the high dose, 2500 ppm. A second rat reproduction study (2-generation, 3-litter study) was conducted at dietary doses from 200 to 5000 ppm. There were no adverse effects on fertility. The NOEL was 200 ppm. Decreased food consumption, parental body weight gain and decreased offspring weights were observed at the higher doses.

Teratogenicity: Not teratogenic or embryo-fetal toxic to rats by dietary administration at levels as high as 5000 ppm, the highest dose tested. Administration to rats by oral intubation resulted in a NOEL for maternal and fetal effects of 100 mg/kg body wt./day. Maternal toxicity (reduced food consumption and lower body weights) was observed at 400 and 900 mg/kg. Lower fetal weights and indications of general delayed development associated with maternal toxicity were also observed at these doses. When hexazinone was administered to rabbits via oral intubation, there were no teratogenic or embryo-fetal toxic effects at

## (TOXICOLOGICAL INFORMATION - Continued)

the highest dose tested, 125 mg/kg/day. Only a transient reduction in maternal food consumption was observed at the high dose. The maternal and fetal NOELs are considered to be 125 mg/kg.

Mutagenicity: Not mutagenic in Ames bacterial assay, Chinese hamster ovary cell point mutation assay, or rat liver DNA repair assay; positive in the in vitro Chinese hamster ovary cell cytogenetic assay but negative in the in vivo rat bone marrow cytogenetic assay.

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ECOLOGICAL INFORMATION  
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## Ecotoxicological Information

## Aquatic Toxicity

For the active ingredient hexazinone:

96 Hour LC50, bluegill sunfish: >370 ppm  
96 Hour LC50, rainbow trout : >320 ppm  
96 hour LC50, fathead minnow : 274 ppm

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DISPOSAL CONSIDERATIONS  
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## # Waste Disposal

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. Do not flush to surface water or sanitary sewer system. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

## Container Disposal

Completely empty bag into application equipment. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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TRANSPORTATION INFORMATION  
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## Shipping Information

DOT/IMO  
Proper Shipping Name : Not Regulated

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REGULATORY INFORMATION  
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## # U.S. Federal Regulations

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes  
Chronic : No  
Fire : No  
Reactivity : No  
Pressure : 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. 352-581

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OTHER INFORMATION  
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## NFPA, NPCA-HMIS

NFPA Rating  
Health : 2  
Flammability : 1  
Reactivity : 0

NPCA-HMIS Rating  
Health : 2  
Flammability : 1  
Reactivity : 0

Personal Protection rating to be supplied by user depending on use conditions.

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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 : Agricultural Products  
Address : Wilmington, DE 19898  
Telephone : 800-441-7515

# Indicates updated section.

End of MSDS