



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont
Material Safety Data Sheet

Page 1

M0000483 "DuPont" "CINCH" HERBICIDE
Revised 10-OCT-2005

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"CINCH" is a registered trademark of DuPont.

"DuPont" is a trademark of DuPont.

Tradenames and Synonyms

CINCH HERBICIDE
DUPONT DPX-H1D19 HERBICIDE
DPX-H1D19
S-METOLACHLOR

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 (outside of U.S.
302-774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
S-Metolachlor	87392-12-9	82.4
Acetamide, 2-chloro-N-(2-ethyl-6-methylphenyl)- N-(2-methoxy-1-methylethyl)-, (S)		
INERT INGREDIENTS INCLUDING		17.6
* NAPHTHALENE (NOT TO EXCEED 1%)	91-20-3	

* 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 eye irritation. Harmful if swallowed or absorbed through the skin. Avoid contact with eyes, skin, or clothing. This product may cause skin sensitization in some people.

Potential Health Effects

Eye contact with Cinch may cause eye irritation with tearing, pain or blurred vision.

Skin contact with Cinch may cause skin irritation with irritation with itching, redness or rash. This product may cause skin sensitization reactions in some people.

Inhalation may cause irritation of the upper respiratory passages. Higher exposures may lead to temporary nervous system depression with anaesthetic effects such as dizziness, headache, confusion, incoordination, and loss of consciousness.

Ingestion may cause abnormal liver function; abnormal kidney function; abnormal blood forming system function with anemia; or red blood cell destruction.

Individuals with preexisting diseases of the central nervous system, liver, kidneys, eyes, skin or lungs may have increased susceptibility to the toxicity of excessive exposures.

Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material	IARC	NTP	OSHA	ACGIH
NAPHTHALENE	2B		X	

FIRST AID MEASURES

First Aid

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for 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.

(FIRST AID MEASURES - Continued)

IF SWALLOWED: Call a Poison Control Center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person.

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.

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 medical emergencies involving this product.

FIRE FIGHTING MEASURES

Flammable Properties

FIRE AND EXPLOSION

Flash Point (Test Method):	>200°F (Setaflash)
Flammable Limits (% in Air):	Lower: % Not Applicable Upper: % Not Applicable
Autoignition Temperature:	Not Available
Flammability:	Not Applicable

UNUSUAL FIRE, EXPLOSION, AND REACTIVITY HAZARDS

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Fire and Explosion Hazards:

Not a fire or explosion hazard.

Extinguishing Media

Use dry chemical, foam, or CO2 extinguishing media.

Fire Fighting Instructions

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect 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.

Spill Clean Up

Control the spill at its source. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Exposure Controls / Personal Protective Equipment section of MSDS. If a solid, sweep up material and place in a compatible disposal container. If a liquid, cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g., commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container, and arrange for disposition.

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 1-800-424-9300, day or night.

HANDLING AND STORAGE

Handling (Personnel)

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Storage

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

Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly with soap and water after handling.

(HANDLING AND STORAGE - Continued)

Store the material in a well-ventilated, secure area out of the reach of children and domestic animals.

This product may be stored at temperatures down to 30 degrees below 0°F.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)]. When using the closed system, the mixers' and loaders' PPE requirements may be reduced or modified as specified in the WPS.

When applicators use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the 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

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Chemical-resistant gloves, such as barrier laminate or viton.

Shoes plus socks.

Follow manufacturer instructions for cleaning and 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.

Chemical-resistant gloves, such as barrier laminate or viton.

Shoes plus socks.

Exposure Guidelines

Applicable Exposure Limits

NAPHTHALENE

PEL (OSHA) : 10 ppm, 50 mg/m³, 8 Hr. TWA
TLV (ACGIH) : 10 ppm, 52 mg/m³, 8 Hr. TWA, Skin, A4
STEL 15 ppm, 79 mg/m³, A4
AEL * (DuPont) : 0.1 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

Appearance: Dark Brown Liquid
Odor: Petroleum Odor
Melting Point: Not Applicable
Boiling Point: Not Available
Specific Gravity/Density: 1.11 g/cm³ @ 68°F (20°C)
pH 7.2 (1% solution in H₂O @ 77°F
(25°C))
Solubility in H₂O
S-Metolachlor: 0.48 g/L @ 77°F (25°C)
Vapor Pressure
S-Metolachlor: 2.8 x 10⁽⁻⁵⁾ mmHg @ 77°F (25°C)

STABILITY AND REACTIVITY

Chemical Stability

Stability: Stable under normal use and storage conditions.

Conditions to Avoid

Conditions to Avoid: None Known

Decomposition

Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.

Polymerization

Hazardous Polymerization: Will Not Occur

TOXICOLOGICAL INFORMATION

Animal Data

Cinch

Oral LD50: 2149 mg/kg in rats
Dermal LD50: > 2020 mg/kg in rabbits
Inhalation 4 hour LC50: > 3.8 mg/L in rats

Cinch is a slight skin irritant and a moderate eye irritant, but is not a skin sensitizer in animal tests.

S-Metolachlor

Animal testing indicates that S-Metolachlor did not cause reproductive effects. S-Metolachlor was found not to cause mutagenicity. Benign liver tumors were observed at high dose levels in female rats.

Naphthalene

Repeated oral doses caused biochemical alterations and increased liver weight, kidney changes, anemia, retinal atrophy and lens opacity.

Data show an increased incidence of tumors in laboratory animals exposed by inhalation to Naphthalene. Animal testing indicates that Naphthalene does not cause developmental toxicity. One published study has indicated reproductive toxicity in mice given high oral doses.

Tests in bacterial cell cultures with Naphthalene demonstrate no mutagenic activity. There are reports indicating Naphthalene produced genetic damage in some tests with mammalian cell cultures; however, there are other reports that suggest negative results. Naphthalene produced genetic damage in insects (*Drosophila melangaster*).

ECOLOGICAL INFORMATION

Ecotoxicological Information

AQUATIC TOXICITY:

Naphthalene

96 hour LC50 - Fathead minnows: 6.14 mg/L

S-Metolachlor

LC50/EC50 - Trout: 12 ppm
LC50/EC50 - Bluegill: 3.16 ppm
LC50/EC50 - Daphnia: 26 ppm

AVIAN TOXICITY:

S-Metolachlor

8-Day Dietary LC50/EC50 - Bobwhite Quail: > 5620 ppm

(ECOLOGICAL INFORMATION - Continued)

8-Day Dietary LC50/EC50 - Mallard Duck: > 5620 ppm

LC50/EC50 - Bees: > 200 ug/bee

DISPOSAL CONSIDERATIONS

Waste Disposal

Pesticide Disposal:

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

ENVIRONMENTAL HAZARDS:

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

Waste Management

Characteristic Waste: Under certain circumstances, discarded product may exhibit TCLP hazardous characteristics. A hazardous waste determination should be done on a case-by-case basis.

Listed Waste: Not Applicable

Container Disposal

Container Disposal (2.5 gallon)

Do not reuse empty container. Triple rinse (or equivalent), puncture and dispose of in a sanitary landfill, or incineration, or by open burning, if allowed by state and local authorities. Keep out of smoke from burning containers.

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 1-800-424-9300, day or night.

Container Refilling and Disposal (Bulk 100 and 220 gals.)
When this container is empty, replace the cap and seal all openings that have been opened during use; and return the

(DISPOSAL CONSIDERATIONS - Continued)

container to the point of purchase or to a designated location named at the time of purchase of this product. The container must only be refilled with this pesticide product. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, contact DuPont at 1-800-424-9300. If not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

This product may be stored at temperatures down to 30 degrees below 0°F.

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 1-800-424-9300, day or night.

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO/ICAO:

Proper Shipping Name : Not Regulated by DOT/IMO/ICAO
unless a single package contains
100 or more pounds Naphthalene
(See DOT/IMO/ICAO shipping
description below.)

Proper Shipping Name : Environmentally Hazardous
Substances, Liquid, n.o.s.,
(Naphthalene)

Hazard Class : 9

UN/NA Number : UN 3082

Packing Group : III

Marine Pollutant : No

Reportable Quantity : Yes (100 pounds)

REGULATORY INFORMATION

U.S. Federal Regulations

EPA Reg. No. 352-625

EPCRA SARA Title III Classification

Section 311/312:

Acute Health Hazard,

Section 313 Toxic Chemicals:

Naphthalene (not to exceed 1%) (CAS No. 91-20-3)

CERCLA/SARA 302 Reportable Quantity (RQ)

Report product spills > 3,200 gal. (based on naphthalene
[RQ = 100 lbs.] content in the formulation)

RCRA Hazardous Waste Classification (40 CFR 261)

Under certain circumstances, discarded product may exhibit
TCLP hazardous characteristics. A hazardous waste
determination should be done on a case-by-case basis.

TSCA Status

Exempt from TSCA, subject to FIFRA

OTHER INFORMATION

NFPA, NPCA-HMIS

NFPA Hazard Ratings:

Health: 2
Flammability: 1
Instability: 0

HMIS Hazard Ratings:

Health: 1
Flammability: 1
Reactivity: 00 Minimal
1 Slight
2 Moderate
3 Serious
4 Extreme-----
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

(Continued)

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