

**DuPont™ Mesotrione 50WG Herbicide**

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : DuPont™ Mesotrione 50WG Herbicide
Tradename/Synonym : DPX-YP307
Mesotrione 50 PX
BL4 Herbicide
2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexandione

Product Use : Herbicide

Restrictions on use :
Do not use product for anything outside of the above specified uses.

Manufacturer/Supplier : DuPont
974 Centre Road
Wilmington, DE 19805, USA

Product Information : 1-800-441-7515 (outside the U.S. 1-302-774-1000)
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)
Transport Emergency : CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION**Product hazard category**

Serious eye damage/eye irritation Category 2B

Label content

Pictogram : not required

Signal word : Warning


DuPont™ Mesotrione 50WG Herbicide

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

Hazardous warnings : Causes eye irritation.

Hazardous prevention measures : Wash skin thoroughly after handling.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/ attention.

Other hazards

If you mill or grind this product you may change its toxicological properties.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Mesotrione	104206-82-8	50 %
Sodium alkylnaphthalene sulfonate		1 - 5 %
Modified Aromatic Sulfonate Salt		5 - 10 %
Fatty acids, tallow, sodium salts	8052-48-0	0.5 - 1 %
Other Ingredients		34 - 42.9 %

Present as an impurity in the clay component of this product:

Titanium dioxide	13463-67-7	0.1 - 0.5 %
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**DuPont™ Mesotrione 50WG Herbicide**

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

- General advice : Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
For medical emergencies involving this product, call toll free 1-800-441-3637.
See Label for Additional Precautions and Directions for Use.
- Inhalation : Move 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 treatment advice.
- Skin contact : Take off all contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Eye contact : 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.
- Ingestion : Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Do not give anything by mouth to an unconscious person.
- Most important symptoms/effects, acute and delayed : No applicable data available.
- Protection of first-aiders : No applicable data available.
- Notes to physician : No applicable data available.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray, Foam, Dry chemical, Carbon dioxide (CO₂)
- Unsuitable extinguishing media : High volume water jet, (contamination risk)

**DuPont™ Mesotrione 50WG Herbicide**

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

- Specific hazards : In fire conditions, toxic decomposition products may be formed.
- Special protective equipment for firefighters : Wear full protective clothing and self-contained breathing apparatus.
- Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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

- Safeguards (Personnel) : Evacuate personnel to safe areas. Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation.
- Environmental precautions : Prevent material from entering sewers, waterways, or low areas.
- Spill Cleanup : Sweep up and shovel into suitable containers for disposal.
- Accidental Release Measures : Follow applicable Federal, State/Provincial and Local laws/regulations.

SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing.
- Handling (Physical Aspects) : Spray solutions of this product must be mixed, stored, and applied only in stainless steel, fiberglass, plastic, and plastic-lined steel containers.
- Dust explosion class : No applicable data available.
- Storage : Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

**DuPont™ Mesotrione 50WG Herbicide**

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

Store in original container. Keep container tightly closed. Store in a cool dry area away from feed, seed or fertilizer. Keep away from heat, sparks and flames. Keep out of the reach of children.

Storage period : No applicable data available.

Storage temperature : No applicable data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Use only with adequate ventilation.

Personal protective equipment

Respiratory protection : Respiratory protection should not be required for normal use and handling. Where there is potential for airborne exposures in excess of applicable limits, wear NIOSH approved respiratory protection with dust/mist cartridge.

Eye protection : Wear protective eyewear to prevent contact with this substance.

Skin and body protection : Applicators and other handlers must wear:
Long sleeved shirt and long pants
Shoes plus socks
Chemical-resistant gloves
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
Shoes plus socks
Chemical-resistant gloves

Protective measures : Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Exposure Guidelines**Exposure Limit Values**

Sodium alkylnaphthalene sulfonate
No applicable data available.

Mesotrione


DuPont™ Mesotrione 50WG Herbicide

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

No applicable data available.

Modified Aromatic Sulfonate Salt
No applicable data available.

Titanium dioxide			
Permissible exposure limit:	(OSHA)	15 mg/m ³	8 hr. TWA Total dust.
TLV	(ACGIH)	10 mg/m ³	TWA
AEL *	(DUPONT)	10 mg/m ³	8 & 12 hr. TWA Total dust.
AEL *	(DUPONT)	5 mg/m ³	8 & 12 hr. TWA Respirable dust.

Fatty acids, tallow, sodium salts
No applicable data available.

* 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : solid
Form : granules
Color : beige, to, yellow

Odor : slight

Odor threshold : not determined

pH : 4.0 - 6.0

Melting point/freezing point : Melting point/range
Not available for this mixture.

Boiling point/boiling range : No applicable data available.

Flash point : Not applicable

**DuPont™ Mesotrione 50WG Herbicide**

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

Evaporation rate	: Not applicable
Flammability (solid, gas)	: The product is not flammable.
Upper explosion limit	: Not available for this mixture.
Lower explosion limit	: Not available for this mixture.
Vapor pressure	: at 20 °C (68 °F)
Vapor density	: Not applicable
Density	: 0.5 - 0.6 g/cm ³
Specific gravity (Relative density)	: No applicable data available.
Water solubility	: dispersible
Solubility(ies)	: 0.16 g/l at 20 °C (68 °F)
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: Not available for this mixture.
Ignition temperature	: 256.11 °C
Decomposition temperature	: Not available for this mixture.
Viscosity, kinematic	: No applicable data available.
Viscosity, dynamic	: Not available for this mixture.
Phys-chem data	: No other data to be specially mentioned.
Oxidizing Substance	: The product is not oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No hazards to be specially mentioned.
Chemical stability	: Stable at normal temperatures and storage conditions.


DuPont™ Mesotrione 50WG Herbicide

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

Possibility of hazardous reactions	:	Hazardous polymerization will not occur.
Conditions to avoid	:	No applicable data available.
Incompatible materials	:	No materials to be especially mentioned.
Hazardous decomposition products	:	No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

DuPont™ Mesotrione 50WG Herbicide

Inhalation 4 h LC50	:	> 2.58 mg/l , Rat The toxicological data has been taken from products of similar composition.
Dermal LD50	:	> 5,000 mg/kg , Rat The toxicological data has been taken from products of similar composition.
Oral LD50	:	> 5,000 mg/kg , Rat The toxicological data has been taken from products of similar composition.
Skin irritation	:	slight irritation, Rabbit The toxicological data has been taken from products of similar composition. Minimal effects that do not meet the threshold for classification.
Eye irritation	:	Mild eye irritation, Rabbit The toxicological data has been taken from products of similar composition.
Sensitisation	:	Did not cause sensitisation on laboratory animals., Guinea pig The toxicological data has been taken from products of similar composition.

Mesotrione

Repeated dose toxicity	:	No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification., Reduced body weight gain, Increased liver weight, Increased kidney weight, altered hematology, eye effects, Cataracts
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DuPont™ Mesotrione 50WG Herbicide

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

Carcinogenicity : Not classifiable as a human carcinogen.

Mutagenicity : Animal testing did not show any mutagenic effects.

Reproductive toxicity : No toxicity to reproduction

Teratogenicity : Animal testing showed no developmental toxicity.

Fatty acids, tallow, sodium salts

Repeated dose toxicity : Ingestion
Rat
- 90 d
NOAEL: 200 mg/kg Method: see user defined free text
No toxicologically significant effects were found., Information given is based on data obtained from similar substances.

Carcinogenicity : Not classifiable as a human carcinogen.
Animal testing did not show any carcinogenic effects.
Information given is based on data obtained from similar substances.

Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Has not been tested in animals.
Information given is based on data obtained from similar substances.

Reproductive toxicity : No toxicity to reproduction
Animal testing showed no reproductive toxicity.
Information given is based on data obtained from similar substances.

Teratogenicity : Animal testing showed no developmental toxicity.
Information given is based on data obtained from similar substances.

Titanium dioxide

Repeated dose toxicity : Oral
Rat
-
NOAEL: 1,000 mg/kg Method: OECD Test Guideline 408
No toxicologically significant effects were found.

Carcinogenicity : Not classifiable as a human carcinogen.
Overall weight of evidence indicates that the substance is not carcinogenic.

Mutagenicity : Animal testing did not show any mutagenic effects.


DuPont™ Mesotrione 50WG Herbicide

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Reproductive toxicity : Animal testing showed no reproductive toxicity.

Teratogenicity : Animal testing showed no developmental toxicity.

Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

Material	IARC	NTP	OSHA
Titanium dioxide	2B		

SECTION 12. ECOLOGICAL INFORMATION
Aquatic Toxicity

DuPont™ Mesotrione 50WG Herbicide

96 h LC50 : Oncorhynchus mykiss (rainbow trout) 28 mg/l
(Data on the product itself)
Information source: Data provided by an external source.

72 h EC50 : Pseudokirchneriella subcapitata (green algae) > 100 mg/l
(Data on the product itself)
Information source: Data provided by an external source.

7 d EC50 : Lemna gibba (duckweed) 0.061 mg/l
(Data on the product itself)
Information source: Data provided by an external source.

48 h EC50 : Daphnia magna (Water flea) 47 mg/l
(Data on the product itself)
Information source: Data provided by an external source.

Environmental Fate

Sodium alkylnaphthalene sulfonate


DuPont™ Mesotrione 50WG Herbicide

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

Biodegradability	:	Not readily biodegradable.
Bioaccumulation	:	Bioaccumulation is unlikely.
Fatty acids, tallow, sodium salts Biodegradability	:	Biodegradable OECD Test Guideline 301D Information given is based on data obtained from similar substances.
Bioaccumulation	:	Bioaccumulation is unlikely. Information given is based on data obtained from similar substances.
Additional ecological information	:	Environmental Hazards: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. Do not apply where/when conditions favour runoff. See product label for additional application instructions relating to environmental precautions.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods - Product	:	Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.
Waste disposal methods - Container	:	Refer to the product label for instructions. Do not reuse empty container.
Contaminated packaging	:	No applicable data available.

SECTION 14. TRANSPORT INFORMATION

IATA_C	UN number	:	3077
	Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (Mesotrione)
	Class	:	9
	Packing group	:	III
	Labelling No.	:	9MI
IMDG	UN number	:	3077
	Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Mesotrione)
	Class	:	9


DuPont™ Mesotrione 50WG Herbicide

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

Packing group	: III
Labelling No.	: 9
Marine pollutant	: yes (Mesotrione)

Not regulated as a hazardous material by DOT.

SECTION 15. REGULATORY INFORMATION

Other regulations : This Safety Data Sheet is for a pesticide product registered by the US Environmental Protection Agency (USEPA) and various state regulatory agencies, and is therefore also subject to certain requirements under US and state pesticide laws, including the Federal Insecticide Fungicide and Rodenticide Act (FIFRA). These requirements differ from the classification criteria and hazard information required by OSHA for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is information determined by USEPA, and various states.

CAUTION!

Causes moderate eye irritation. Do not get in eyes, on skin, or on clothing.

SARA 313 Regulated Chemical(s) : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

PA Right to Know Regulated Chemical(s) : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Kaolin, Sodium sulphate

Title III hazard classification : Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire: No
Reactivity/Physical hazard: No
Pressure: No

EPA Reg. No. : 352-842
In the United States this product is regulated by the US Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is a violation of Federal law to use this product in

**DuPont™ Mesotrione 50WG Herbicide**

Version 2.1

Revision Date 03/14/2016

Ref. 130000044508

a manner inconsistent with its labeling. Read and follow all label directions.
This product is excluded from listing requirements under EPA/TSCA.

SECTION 16. OTHER INFORMATION

	NFPA
Health :	1
Flammability :	1
Reactivity/Physical hazard :	0

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Contact person : DuPont Crop Protection, Wilmington, DE, 19805, Phone: 1-888-638-7668

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