

**DuPont™ Breakfree® ATZ Lite Herbicide**

Version 3.0

Issue Date : 03/18/2019 Ref. 130000036261
Revision Date : 10/19/2018

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™ Breakfree® ATZ Lite Herbicide
Tradename/Synonym : DPX-QDN34
ACETOCHLOR: 2-chloro-2'-methyl-6'-ethyl-N-ethoxymethylacetanilide
ATRAZINE: [2-chloro-4-(ethylamino)-6-isopropylamino]-s-triazine] and related triazines

Product Use : Herbicide

Restrictions on use : This product is intended to be used as a pesticide

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 : +1-800-424-9300 (outside the U.S. +1-703-527-3887)

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

Skin sensitisation	Category 1
Specific target organ toxicity - single exposure	Category 3
Specific target organ toxicity - repeated exposure	Category 2

DuPont™ Breakfree® ATZ Lite Herbicide

Version 3.0

Issue Date : 03/18/2019
Revision Date : 10/19/2018

Ref. 130000036261

Label content

Pictogram :



Signal word : Warning

Hazardous warnings : May cause an allergic skin reaction.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.Hazardous prevention measures : Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves.
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Get medical advice/ attention if you feel unwell.
If skin irritation or rash occurs: Get medical advice/ attention.
Wash contaminated clothing before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/ container to an approved waste disposal plant.**Other hazards**

Information presented in Section 2 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.

**DuPont™ Breakfree® ATZ Lite Herbicide**

Version 3.0

Issue Date : 03/18/2019
Revision Date : 10/19/2018

Ref. 130000036261

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Acetochlor	34256-82-1	43.4 %
Atrazine	1912-24-9	16.3 %
Dichlormid	37764-25-3	7.1 %
Propane-1,2-diol	57-55-6	2.9 %
Other Ingredients		30.3 %

SECTION 4. FIRST AID MEASURES

- General advice : Information presented in Section 4 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.
For medical emergencies involving this product, call toll free 1-800-441-3637. See Label for Additional Precautions and Directions for Use.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- Inhalation : No specific intervention is indicated as the compound is not likely to be hazardous. Consult a physician if necessary.
- Skin contact : The material is not likely to be hazardous by skin contact, but cleaning the skin after use is advisable. Consult a physician if necessary.
- 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.



DuPont™ Breakfree® ATZ Lite Herbicide

Version 3.0

Issue Date : 03/18/2019 Ref. 130000036261
 Revision Date : 10/19/2018

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. Never 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 : In case of fire, use water fog, foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet, (contamination risk)

Specific hazards : No applicable data available.

Special protective equipment for firefighters : Wear full protective clothing and self-contained breathing apparatus.

Further information : (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers/tanks with water spray.

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. Keep people away from and upwind of spill/leak. Wear suitable protective equipment.

Environmental precautions : Prevent material from entering sewers, waterways, or low areas.

Spill Cleanup : Soak up with sawdust, sand, oil dry or other absorbent material. Dispose of in an approved container.
 If liquid has been spilt in large quantities clean up promptly by scoop or



DuPont™ Breakfree® ATZ Lite Herbicide

Version 3.0

Issue Date : 03/18/2019 Ref. 130000036261
 Revision Date : 10/19/2018

vacuum.

Accidental Release Measures : Never return spills in original containers for re-use. Dispose of in accordance with local 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 clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. 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.

Handling (Physical Aspects) : No applicable data available.
 Dust explosion class : No applicable data available.
 Storage : Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in original container. Keep container closed when not in use. Store in a cool, dry, well-ventilated area. 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 : Information presented in Section 8 conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies. Ensure adequate ventilation. Refer to the product label for additional Engineering Controls.

Personal protective equipment
 Skin and body protection : Mixers, loaders, applicators and other handlers must wear:
 Long sleeved shirt and long pants
 Chemical-resistant gloves
 Chemical resistant footwear plus socks
 Chemical resistant headgear for overhead exposure



DuPont™ Breakfree® ATZ Lite Herbicide

Version 3.0

Issue Date : 03/18/2019 Ref. 130000036261
 Revision Date : 10/19/2018

Chemical resistant apron when mixing, loading, or cleaning equipment or spills.
 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 made of any waterproof material
 Chemical resistant footwear plus socks
 Protective eyewear

Protective measures : 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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Use this product in accordance with its label.

Exposure Guidelines
 Exposure Limit Values

Atrazine			
TLV	(ACGIH)	2 mg/m3	TWA
AEL *	(DuPont)	2.5 mg/m3	8 & 12 hr. TWA

Acetochlor			
No applicable data available.			

N,N-Diallyldichloroacetamide			
No applicable data available.			

Propane-1,2-diol			
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 : liquid
 Form : liquid

**DuPont™ Breakfree® ATZ Lite Herbicide**

Version 3.0

Issue Date : 03/18/2019 Ref. 130000036261
Revision Date : 10/19/2018

Color : tan

Odor : Faint odour, aromatic

Odor threshold : No applicable data available.

pH : not determined

Melting point/range : No applicable data available.

Boiling point/boiling range : Boiling point/boiling range
not determined

Flash point : > 100 °C
Method: Tag closed cup - TCC

Evaporation rate : No applicable data available.

Flammability (solid, gas) : No applicable data available.

Upper explosion limit : No applicable data available.

Lower explosion limit : No applicable data available.

Vapour Pressure : No applicable data available.

Vapour density : No applicable data available.

Density : 9.26 lb/gal at 25 °C (77 °F)

Specific gravity (Relative density) : 1.11 at 25 °C (77 °F)

Water solubility : not determined

Solubility(ies) : No applicable data available.

Partition coefficient: n-octanol/water : No applicable data available.

Auto-ignition temperature : No applicable data available.

Decomposition temperature : No applicable data available.

Viscosity, kinematic : No applicable data available.

**DuPont™ Breakfree® ATZ Lite Herbicide**

Version 3.0

Issue Date : 03/18/2019 Ref. 130000036261
Revision Date : 10/19/2018

Viscosity, dynamic : No applicable data available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No applicable data available.
Chemical stability : Stable at normal temperatures and storage conditions.
Possibility of hazardous reactions : Polymerization will not occur.
Conditions to avoid : None known.
Incompatible materials : Avoid contact with: Oxidizing agents
Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:, Carbon dioxide (CO₂), Carbon monoxide, Hydrogen chloride

SECTION 11. TOXICOLOGICAL INFORMATION

DuPont™ Breakfree® ATZ Lite Herbicide

Inhalation 4 h LC50 : > 6.29 mg/l , Rat
Information given is based on data obtained from similar substances.

Dermal LD50 : > 5,000 mg/kg , Rat
Information given is based on data obtained from similar substances.

Oral LD50 : 2,000 - 5,000 mg/kg , male, Rat
Information given is based on data obtained from similar substances.

Oral LD50 : 3,030 mg/kg , female, Rat

Skin irritation : No skin irritation,
Minimal effects that do not meet the threshold for classification.

Eye irritation : No eye irritation,
Minimal effects that do not meet the threshold for classification.

Sensitisation : May cause sensitisation by skin contact., Guinea pig
Information given is based on data obtained from similar substances.

Further information : Information presented in this Section conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard



DuPont™ Breakfree® ATZ Lite Herbicide

Version 3.0

Issue Date : 03/18/2019
 Revision Date : 10/19/2018

Ref. 130000036261

Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.

Acetochlor

Repeated dose toxicity : Ingestion
 multiple species
 - 90 dMethod: OECD Test Guideline 408
 altered hematology, altered blood chemistry, Kidney effects, Liver effects

Skin contact
 Rabbit
 - 21 d
 NOAEL: 400 mg/kg
 No toxicologically significant effects were found.

Carcinogenicity : Suspected human carcinogens
 An increased incidence of tumours was observed in laboratory animals.
 Target(s):
 Lungs
 Uterus

Mutagenicity : Weight of evidence does not support classification as a germ cell mutagen.
 Genetic damage in cultured bacterial cells was observed in some laboratory tests but not in others.
 Genetic damage in cultured mammalian cells was observed in some laboratory tests but not in others.

Reproductive toxicity : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.
 Animal testing showed effects on reproduction that included
 Reduced fertility
 Pathologic effects on reproductive organs

Teratogenicity : Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

Atrazine

Repeated dose toxicity : Ingestion
 Dog
 -


DuPont™ Breakfree® ATZ Lite Herbicide

Version 3.0

Issue Date : 03/18/2019
 Revision Date : 10/19/2018

Ref. 130000036261

Target Organs: Heart
 cardiovascular system effects

Carcinogenicity : Not classifiable as a human carcinogen.

Mutagenicity : Animal testing did not show any mutagenic effects.

Reproductive toxicity : Weight of evidence does not support classification for reproductive toxicity

Dichlormid

Repeated dose toxicity :
 multiple species
 -
 No toxicological effects warranting significant target organ toxicity classification were seen below the recommended guidance values for classification., Liver effects, Respiratory effects, Central nervous system effects

Carcinogenicity : Not classifiable as a human carcinogen.
 Animal testing did not show any carcinogenic effects.

Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
 Animal testing did not show any mutagenic effects.

Reproductive toxicity : No toxicity to reproduction

Teratogenicity : Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

Propane-1,2-diol

Repeated dose toxicity : Ingestion
 Cat
 - 94 d
 NOAEL: 443 mg/kg
 LOAEL: 4,239 mg/kg
 No toxicologically significant effects were found.

Inhalation
 Rat
 - 90 d
 NOAEL: > 2.2 mg/l
 LOAEL: 0.16 mg/l
 No toxicologically significant effects were found.


DuPont™ Breakfree® ATZ Lite Herbicide

Version 3.0

Issue Date : 03/18/2019
 Revision Date : 10/19/2018

Ref. 130000036261

- Carcinogenicity : Animal testing did not show any carcinogenic effects.
- Mutagenicity : Animal testing did not show any mutagenic effects.
 Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Reproductive toxicity : No toxicity to reproduction
 Animal testing showed no reproductive toxicity.
 No effects on or via lactation
- 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).

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

SECTION 12. ECOLOGICAL INFORMATION
Aquatic Toxicity
Acetochlor

- 96 h LC50 : Oncorhynchus mykiss (rainbow trout) 0.36 mg/l OECD Test Guideline 203
- 72 h ErC50 : Pseudokirchneriella subcapitata (green algae) 0.00052 mg/l OECD Test Guideline 201
- 72 h NOEC : Pseudokirchneriella subcapitata (green algae) 0.00013 mg/l
- 48 h EC50 : Daphnia magna (Water flea) 8.6 mg/l OECD Test Guideline 202
- 60 d : NOEC Oncorhynchus mykiss (rainbow trout) 0.13 mg/l US EPA Test Guideline OPP 72-4
- 21 d : NOEC Daphnia magna (Water flea) 0.022 mg/l OECD Test Guideline 202

Atrazine


DuPont™ Breakfree® ATZ Lite Herbicide

Version 3.0

Issue Date : 03/18/2019 Ref. 130000036261
 Revision Date : 10/19/2018

96 h LC50 : Oncorhynchus mykiss (rainbow trout) 4.5 mg/l
 96 h EC50 : Pseudokirchneriella subcapitata (green algae) 0.049 mg/l
 48 h EC50 : Daphnia magna (Water flea) 6.9 mg/l

Dichlormid

96 h LC50 : Oncorhynchus mykiss (rainbow trout) 141 mg/l
 72 h EC50 : Pseudokirchneriella subcapitata (green algae) 80 mg/l
 48 h EC50 : Daphnia magna (Water flea) 161 mg/l

Propane-1,2-diol

96 h LC50 : Oncorhynchus mykiss (rainbow trout) 40,613 mg/l
 72 h ErC50 : Pseudokirchneriella subcapitata (green algae) 24,200 mg/l OECD
 Test Guideline 201
 14 d NOEC : Pseudokirchneriella subcapitata (green algae) 15,000 mg/l OECD
 Test Guideline 201
 48 h EC50 : Ceriodaphnia dubia (water flea) 18,340 mg/l
 7 d : NOEC Ceriodaphnia dubia (water flea) 13,020 mg/l

Toxicity to other organisms

Acetochlor

LD50 : Colinus virginianus (Bobwhite quail) 928 mg/kg
 LC50 : Colinus virginianus (Bobwhite quail) > 5,620 mg/kg
 LC50 : Anas platyrhynchos (Mallard duck) > 5,620 mg/kg

Environmental Fate

Acetochlor

Bioaccumulation : Bioaccumulation is unlikely.

Propane-1,2-diol

Bioaccumulation : Bioaccumulation is unlikely.

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 apply where weather conditions favour drift


DuPont™ Breakfree® ATZ Lite Herbicide

Version 3.0

Issue Date : 03/18/2019
 Revision Date : 10/19/2018

Ref. 130000036261

from areas treated. Run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. 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. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Waste disposal methods - Container : Container Refilling and Disposal: Refer to the product label for instructions. Do not transport if this container is damaged or leaking. In the event of a major spill, fire or other emergency, call 1-800-441-3637 day or night.

Contaminated packaging : No applicable data available.

SECTION 14. TRANSPORT INFORMATION

IATA_C	UN number	: 3082
	Proper shipping name	: Environmentally hazardous substance, liquid, n.o.s. (Acetochlor)
	Class	: 9
	Packing group	: III
IMDG	Labelling No.	: 9MI
	UN number	: 3082
	Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acetochlor)
	Class	: 9
	Packing group	: III
	Labelling No.	: 9
	Marine pollutant	: yes (Acetochlor)

Not regulated as a hazardous material by DOT.


DuPont™ Breakfree® ATZ Lite Herbicide

Version 3.0

Issue Date : 03/18/2019 Ref. 130000036261
 Revision Date : 10/19/2018

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. Harmful if swallowed. Avoid contact with skin, eyes and clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. This product is toxic to fish. This product is toxic to: Aquatic invertebrates

SARA 311/312 Hazard classification : Respiratory or skin sensitisation
 Specific target organ toxicity (single or repeated exposure)

SARA 313 Regulated Chemical(s) : Atrazine

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):
 Propane-1,2-diol, Atrazine

EPA Reg. No. : 352-723
 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 a manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

California Prop. 65 : This product can expose you to substances including 2-Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide, which is/are known to the State of California to cause cancer, and Atrazine, which is/are known to the State of California to cause birth defects or other reproductive harm. For



DuPont™ Breakfree® ATZ Lite Herbicide

Version 3.0

Issue Date : 03/18/2019 Ref. 130000036261
Revision Date : 10/19/2018

more information go to www.P65Warnings.ca.gov.

SECTION 16. OTHER INFORMATION

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Issue Date : 03/18/2019
Revision Date : 10/19/2018

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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.