

SEGMENT®

Version 1.0

Revision Date 03.01.2018

Ref. 130000133588

This Safety Data Sheet adheres to the standards and regulatory requirements of Russia and may not meet the regulatory requirements in other countries.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : SEGMENT®
Synonyms : C12370841
DPX-A8947 50PX
SEGMENT®

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Herbicide

1.3. Details of the supplier of the safety data sheet

Company : Cheminova LLC
Smolnaya St., 24D, 18th floor, 125445 Moscow

Telephone : +7 (495) 797 2200

Telefax : +7 (495) 797 2203

1.4. Emergency telephone number

Emergency telephone number : +44 (0) 8456 006 640

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Dangerous for the environment : R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Labelling according to EU Directives 67/548/EEC or 1999/45/EC



Dangerous for
the environment

R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Special labelling of certain substances and mixtures : To avoid risks to man and the environment, comply with the instructions for use.

S 2 : Keep out of the reach of children.
S13 : Keep away from food, drink and animal feedingstuffs.
S20/21 : When using do not eat, drink or smoke.

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S35	This material and its container must be disposed of in a safe way.
S46	If swallowed, seek medical advice immediately and show this container or label.
S57	Use appropriate container to avoid environmental contamination.
SP 1	Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).
SP 1	Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Classification according to Directive 67/548/EEC	Classification according to Regulation (EU) 1272/2008 (CLP)	Concentration
Azimsulfuron (CAS-No.120162-55-2)		
N;R50/53	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	50,0 %

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	: Never give anything by mouth to an unconscious person.
Inhalation	: Move to fresh air. Consult a physician after significant exposure. Artificial respiration and/or oxygen may be necessary.
Skin contact	: Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician. Wash contaminated clothing before re-use.
Eye contact	: If easy to do, remove contact lens, if worn. Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist.
Ingestion	: Obtain medical attention. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is conscious: Rinse mouth with water.

4.2. Most important symptoms and effects, both acute and delayed

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Symptoms : No cases of human intoxication are known and the symptoms of experimental intoxication are not known.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray, Dry chemical, Foam, Carbon dioxide (CO₂)

Extinguishing media which shall not be used for safety reasons : High volume water jet, (contamination risk)

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting : Hazardous decomposition products formed under fire conditions. Carbon dioxide (CO₂) Nitrogen oxides (NO_x)

5.3. Advice for firefighters

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

Further information : The product itself does not burn. (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.
: 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

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Control access to area. Avoid dust formation. Avoid breathing dust. Avoid contact with skin and eyes. Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

6.2. Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so. Use appropriate container to avoid environmental contamination. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. If the product contaminates rivers and lakes or drains inform respective authorities. If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal.

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6.3. Methods and materials for containment and cleaning up

- Methods for cleaning up : Clean-up methods - small spillage Sweep up or vacuum up spillage and collect in suitable container for disposal.
Clean-up methods - large spillage Prevent further leakage or spillage. Use approved industrial vacuum cleaner for removal. Shovel into suitable container for disposal.
- Other information : Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

6.4. Reference to other sections

For personal protection see section 8., For disposal instructions see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Advice on safe handling : Use only clean equipment. Provide appropriate exhaust ventilation at places where dust is formed. Wear personal protective equipment. Do not breathe dust or spray mist. Use only according to our recommendations. Avoid contact with skin, eyes and clothing. Prepare the working solution as given on the label(s) and/or the user instructions. Use prepared working solution as soon as possible - Do not store. Remove and wash contaminated clothing before re-use. For personal protection see section 8.
- Advice on protection against fire and explosion : Keep away from heat and sources of ignition. Avoid dust formation in confined areas. During processing, dust may form explosive mixture in air.

7.2. Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Store in a place accessible by authorized persons only. Store in original container. Keep in properly labelled containers. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.
- Further information on storage conditions : Do not allow product to become wet during storage.
- Advice on common storage : No special restrictions on storage with other products. Keep away from: Strong acids Bases
- Other data : Stable under recommended storage conditions.

7.3. Specific end use(s)

Plant protection products subject to Regulation (EC) No 1107/2009.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

If sub-section is empty then no values are applicable.

Components with workplace control parameters

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Type Form of exposure	Control parameters	Update		Peak-limit category
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Talc (Mg₃H₂(SiO₃)₄) (asbestos-free) (CAS-No. 14807-96-6)

TWA Respirable fibers.	4 mg/m ³	07 2011	RU MAC	
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TWA Respirable fibers.	0,1 mg/m ³	07 2011	RU MAC	
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TLV-C Respirable fibers.	8 mg/m ³	07 2011	RU MAC	
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TLV-C Respirable fibers.	0,5 mg/m ³	07 2011	RU MAC	
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Silicon dioxide, amorphous (CAS-No. 7631-86-9)

TLV-C Aerosol.	3 mg/m ³	09 2009	RU MAC	
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TWA Aerosol.	1 mg/m ³	09 2009	RU MAC	
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Phenol (CAS-No. 108-95-2)

SKIN_DES		12 2009	EU ELV	Can be absorbed through skin.
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TWA	8 mg/m ³ 2 ppm	12 2009	EU ELV	Indicative
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STEL	16 mg/m ³ 4 ppm	12 2009	EU ELV	Indicative
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TWA Vapor.	0,3 mg/m ³	09 2009	RU MAC	
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TLV-C Vapor.	1 mg/m ³	09 2009	RU MAC	
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MAC TWA	0,05 mg/m ³	12 2011	BY MAC	
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MAC TWA Vapor.	0,3 mg/m ³	12 2011	BY MAC	
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MAC STEL Vapor.	1 mg/m ³	12 2011	BY MAC	
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8.2. Exposure controls

- Engineering measures : Ensure adequate ventilation, especially in confined areas. Provide for appropriate exhaust ventilation and dust collection at machinery. Use sufficient ventilation to keep employee exposure below recommended limits.
- Eye protection : Safety glasses with side-shields conforming to EN166
- Hand protection : Material: Nitrile rubber
Glove thickness: 0,3 mm
Glove length: Standard glove type.
Protection index: Class 6

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Wearing time: > 480 min

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves must be inspected prior to use. Gauntlets shorter than 35 cm long shall be worn under the combination sleeve. Before removing gloves clean them with soap and water.

Skin and body protection	: Manufacturing and processing work: Full protective clothing Type 5 (EN 13982-2) Mixer and loaders must wear: Full protective clothing Type 5 + 6 (EN ISO 13982-2 / EN 13034) Spray application - outdoor: Tractor / sprayer with hood: No personal body protection normally required. Tractor / sprayer without hood: Low application (horticulture, field crops): Full protective clothing Type 6 (EN 13034) Nitrile rubber boots (EN 13832-3 / EN ISO 20345). Backpack / knapsack sprayer: Low application (horticulture, field crops): Full protective clothing Type 4 (EN 14605) Nitrile rubber boots (EN 13832-3 / EN ISO 20345).
Protective measures	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. All chemical protective clothing should be visually inspected prior to use. Clothing and gloves should be replaced in case of chemical or physical damage or if contaminated. Only protected handlers may be in the area during application.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing. Keep working clothes separately. Contaminated work clothing should not be allowed out of the workplace. For environmental protection remove and wash all contaminated protective equipment before re-use. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. Dispose of rinse water in accordance with local and national regulations. Wash hands before breaks and at the end of workday.
Respiratory protection	: Manufacturing and processing work: Half mask with a particle filter FFP1 (EN149) Mixer and loaders must wear: Half mask with a particle filter FFP1 (EN149) Spray application - outdoor: Tractor / sprayer with hood: No personal respiratory protective equipment normally required. Half mask with a particle filter FFP1 (EN149) Tractor / sprayer without hood: Low application (horticulture, field crops): Half mask with a particle filter FFP1 (EN149) Backpack / knapsack sprayer: Low application (horticulture, field crops): Half mask with a particle filter P1 (EN 143).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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Form	: extruded granules
Colour	: off-white, light tan
Odour	: Faint odour, lignin like
Odour Threshold	: not determined
pH	: 5,7
Melting point	: Not available for this mixture.
Boiling point/boiling range	: Not available for this mixture.
Flash point	: not applicable
Thermal decomposition	: Not available for this mixture.
Auto-ignition temperature	: not auto-flammable
Oxidizing properties	: The product is not oxidizing.
Explosive properties	: Not explosive
Lower explosion limit/ lower flammability limit	: Not available for this mixture.
Upper explosion limit/ upper flammability limit	: Not available for this mixture.
Vapour pressure	: Not available for this mixture.
Relative density	: 0,5973
Bulk density	: no data available
Water solubility	: dispersible
Partition coefficient: n-octanol/water	: not applicable
Viscosity, kinematic	: not applicable
Relative vapour density	: Not available for this mixture.
Evaporation rate	: not applicable

9.2. Other information

Phys.-chem./other information : Not available for this mixture.

SECTION 10: Stability and reactivity

10.1. Reactivity : No hazards to be specially mentioned.

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- 10.2. Chemical stability** : The product is chemically stable under recommended conditions of storage, use and temperature.
- 10.3. Possibility of hazardous reactions** : No decomposition if stored and applied as directed. No dangerous reaction known under conditions of normal use. Polymerization will not occur. No decomposition if stored and applied as directed.
- 10.4. Conditions to avoid** : To avoid thermal decomposition, do not overheat. Exposure to moisture. Under severe dusting conditions, this material may form explosive mixtures in air.
- 10.5. Incompatible materials** : Incompatible with strong acids and bases.
- 10.6. Hazardous decomposition products** : No materials to be especially mentioned.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

LD50 / rat : > 5 000 mg/kg

Method: OECD Test Guideline 401

(Data on the product itself) Information source: Internal study report

Acute inhalation toxicity

- Azimsulfuron

LC50 / 4 h rat : > 5,94 mg/l

Acute dermal toxicity

LD50 / rat : > 2 000 mg/kg

Method: OECD Test Guideline 402

(Data on the product itself) Information source: Internal study report

Skin irritation

rabbit

Result: No skin irritation

Method: OECD Test Guideline 404

(Data on the product itself) Information source: Internal study report

Eye irritation

rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

(Data on the product itself) Information source: Internal study report

Sensitisation

guinea pig Maximisation Test (GPMT)

Result: Animal test did not cause sensitization by skin contact.

Method: OECD Test Guideline 406

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(Data on the product itself) Information source: Internal study report

Repeated dose toxicity

- Azimsulfuron

The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.

Oral - feed multiple species

Reduced body weight gain, Abnormal decrease in number of red blood cells, Organ weight changes, Liver effects, Pancreas, Spleen effects, Reduced sperm count

Oral rat

Exposure time: 90 d

NOAEL: 75,3 mg/kg

Method: OECD Test Guideline 408

Oral rat

Exposure time: 90 d

NOAEL: 82,4 mg/kg

Method: OECD Test Guideline 408

Mutagenicity assessment

- Azimsulfuron

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

Carcinogenicity assessment

- Azimsulfuron

Did not show carcinogenic effects in animal experiments.

Toxicity to reproduction assessment

- Azimsulfuron

Animal testing did not show any effects on fertility.

Assessment teratogenicity

- Azimsulfuron

Did not show teratogenic effects in animal experiments.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish

LC50 / 96 h / *Oncorhynchus mykiss* (rainbow trout): 492 mg/l

Method: OECD Test Guideline 203

(Data on the product itself) Information source: Internal study report

Toxicity to aquatic plants

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ErC50 / 72 h / *Pseudokirchneriella subcapitata* (green algae): > 0,188 mg/l

Method: OECD Test Guideline 201

(Data on the product itself) Information source: Internal study report

Toxicity to aquatic invertebrates

EC50 / 48 h / *Daphnia magna* (Water flea): > 1 000 mg/l

Method: OECD Test Guideline 202

(Data on the product itself) Information source: Internal study report

Chronic toxicity to fish

- Azimsulfuron

NOEC / 28 d / *Oncorhynchus mykiss* (rainbow trout): 23 mg/l

Chronic toxicity to aquatic Invertebrates

- Azimsulfuron

NOEC / 21 d / *Daphnia magna* (Water flea): 5,4 mg/l

12.2. Persistence and degradability

Biodegradability

Not readily biodegradable. Estimation based on data obtained on active ingredient.

12.3. Bioaccumulative potential

Bioaccumulation

Does not bioaccumulate. Estimation based on data obtained on active ingredient.

12.4. Mobility in soil

Mobility in soil

The product is not expected to be mobile in soils.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). / This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects

Additional ecological information

No other ecological effects to be specially mentioned See product label for additional application instructions relating to environmental precautions.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product : In accordance with local and national regulations. Must be incinerated in a

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suitable incineration plant holding a permit delivered by the competent authorities. The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Do not re-use empty containers.

SECTION 14: Transport information

ADR

- 14.1. UN number: 3077
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Azimsulfuron)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards: For further information see Section 12.
14.6. Special precautions for user:
Tunnel restriction code: (E)

IATA_C

- 14.1. UN number: 3077
14.2. UN proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Azimsulfuron)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards : For further information see Section 12.
14.6. Special precautions for user:
DuPont internal recommendations and transport guidance: ICAO / IATA cargo aircraft only

IMDG

- 14.1. UN number: 3077
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Azimsulfuron)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards : Marine pollutant
14.6. Special precautions for user:
no data available

- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other regulations : The mixture is classified as dangerous in accordance with Directive 1999/45/EC. Take note of Dir 94/33/EC on the protection of young people at work. Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers. Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. Take note of Directive 96/82/EC on the control of major-accident hazards involving dangerous substances. Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.

SECTION 16: Other information

Text of R-phrases mentioned in Section 3

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R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under section 3.

H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Other information professional use

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-No.	Chemical Abstracts Service number
CLP	Classification, Labelling and Packaging
EbC50	Concentration at which 50% reduction of biomass is observed
EC50	Median effective concentration
EN	European Norm
EPA	Environmental Protection Agency
ErC50	Concentration at which a 50% inhibition of growth rate is observed
EyC50	Concentration at which 50 % inhibition of yield is observed
IATA_C	International Air Transport Association (Cargo)
IBC	International Bulk Chemical Code
ICAO	International Civil Aviation Organization
ISO	International Standard Organization
IMDG	International Maritime Dangerous Goods
LC50	Median Lethal Concentration
LD50	Median Lethal Dose
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest observable effect level
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No observed adverse effect level
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
OPPTS	Office of Prevention, Pesticides and Toxic Substances
PBT	Persistent, Bioaccumulative and Toxic
STEL	Short term exposure limit
TWA	time weighted average
vPvB	very Persistent and very Bioaccumulative

Further information

Take notice of the directions of use on the label., Before use read DuPont's safety information.

Significant change from previous version is denoted with a double bar.

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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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.