

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

1.1. Product identifier

Name of the substance	3-Decen-2-one
Trade name of the substance	SmartBlock®; SmartBlock® 98% Technical, 3-Decen-2-one
Identification number	10519-33-2 (CAS number)
Registration number	-
Synonyms	None.
SDS number	369
QAD Number	12551
Version number	03
Revision date	31-March-2015
Supersedes date	08-February-2015

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

Identified uses	Potato sprout inhibitor
Uses advised against	Keep out of the Reach of Children!

1.3. Details of the supplier of the safety data sheet

Supplier

Company name	AMVAC Chemical Corporation	
Address	4100 E Washington Blvd., Los Angeles, CA 90023 United States	
Division		
Telephone	AMVAC Chemical Corp	323-264-3910
	AMVAC Chemical Corp.	323-268-1028 (FAX)
e-mail	CustServ@Amvac-Chemical.com	
Contact person	Not available.	

1.4. Emergency telephone number	Medical	888-681-4261
	CHEMTREC® (USA+Canada)	800-424-9300
	Product Use	888-462-6822
	CHEMTREC® (Outside USA)	+1-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification Xn;R20, Xi;R38

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Acute toxicity, inhalation	Category 4	H332 - Harmful if inhaled.
Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.

Hazard summary

Physical hazards	Not classified for physical hazards.
Health hazards	Harmful by inhalation. Irritating to skin.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	Not available.
Main symptoms	Contact with the skin may cause skin irritation. Contact with the eyes causes tearing and pain that will subside after a short period of time. Inhalation may cause shortness of breath.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: 3-Decen-2-one

Hazard pictograms



Signal word

Warning

Hazard statements

H315 Causes skin irritation.
H332 Harmful if inhaled.

Precautionary statements

Prevention

P261 Avoid breathing mist or vapour.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves and eye/face protection.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P321 Specific treatment (see this label).
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.
P391 Collect spillage.

Storage

None known.

Disposal

None known.

Supplemental label information EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

2.3. Other hazards None known.

SECTION 3: Composition/information on ingredients

3.1. Substances

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
3-Decen-2-one	>=98.0	10519-33-2 234-059-0	-	-	
Classification:		DSD: Xn;R20, Xi;R38			
		CLP: Skin Irrit. 2;H315, Acute Tox. 4;H332			

Impurities

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Other Compounds	<= 2	N/A	-	-	

SECTION 4: First aid measures

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTRE or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical attention if symptoms occur. Drink 1 or 2 glasses of water. Never give anything by mouth to a victim who is unconscious or is having convulsions.

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

Contact with the skin may cause skin irritation. Contact with the eyes causes tearing and pain that will subside after a short period of time. Inhalation may cause shortness of breath.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture Container may explode in heat of fire.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Move containers from fire area if you can do it without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep people away from and upwind of spill/leak. Keep out of low areas. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections For personal protection, see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Avoid breathing mist. Avoid contact with eyes, skin, and clothing. Wear appropriate personal protective equipment. Avoid release to the environment. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Use only outdoors or in a well-ventilated area. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities Store locked up. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s) Potato Sprout Inhibitor.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits No exposure limits noted for ingredient(s).

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Not available.

Derived no-effect level (DNEL) Not available.

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines Amvac recommended PEL = 200 mg/m³.

8.2. Exposure controls

Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. Eye wash facilities and emergency shower must be available when handling this product.
Individual protection measures, such as personal protective equipment	
General information	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
- Hand protection	Wear appropriate chemical resistant gloves.
- Other	Wear appropriate chemical resistant clothing.
Respiratory protection	Not available.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls	Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	A colorless to a slightly yellow color
Physical state	Liquid.
Form	Watery liquid.
Colour	Colorless to light yellow.
Odour	Jasmine
Odour threshold	Not established
pH	4.33 (1% dispersion)
Melting point/freezing point	not determined
Initial boiling point and boiling range	224 °C (435 °F)
Flash point	107 °C (225 °F) Cleveland open cup
Evaporation rate	not determined
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	430 Pa (3.23 mm Hg) at 25 °C
Vapour density	Not available.
Relative density	0.845 g/cm ³
Solubility(ies)	
Solubility (water)	0.14 g/l in water
Solubility (other)	Not available.
Partition coefficient (n-octanol/water)	3.45
Auto-ignition temperature	230 °C (446 °F)
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	This product has been tested and has no explosive properties.
Oxidizing properties	No oxidizing properties.
9.2. Other information	
Bulk density	7.05 lb/gal

Molecular formula	C10H18O
Percent volatile	> 99 %
Specific gravity	0.845

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

General information Not available.

Information on likely routes of exposure

Inhalation No data available

Skin contact

SmartBlock®; SmartBlock® 98% Technical, 3-Decen-2-one Result: Severe irritant (Tox Cat II).
Species: Rabbit

Eye contact

SmartBlock®; SmartBlock® 98% Technical, 3-Decen-2-one Result: Not an eye irritant
Species: Rabbit

Ingestion May cause discomfort if swallowed.

Symptoms Contact with the skin may cause skin irritation. Contact with the eyes causes tearing and pain that will subside after a short period of time. Inhalation may cause shortness of breath.

11.1. Information on toxicological effects

Acute toxicity Harmful if inhaled. Acute and toxicological and mutagenicity data for this product are given below. The long-term toxicological properties of this potato sprout inhibitor have not been determined. Care should be taken with chemicals that have not been thoroughly investigated.

Product	Species	Test results
SmartBlock®; SmartBlock® 98% Technical, 3-Decen-2-one		
Acute		
Dermal		
LD50	Rat	> 5000 mg/kg (Tox Cat IV).
Inhalation		
LC50	Rat	> 1 mg/l/4h Males (Tox Cat IV)
Oral		
LD50	Rat	> 5000 mg/kg Females, (Tox Cat IV).

Skin corrosion/irritation Causes skin irritation.

Irritation Corrosion - Skin

SmartBlock®; SmartBlock® 98% Technical, 3-Decen-2-one Result: Severe irritant (Tox Cat II).
Species: Rabbit

Serious eye damage/eye irritation

Eye contact

SmartBlock®; SmartBlock® 98% Technical, 3-Decen-2-one Result: Not an eye irritant
Species: Rabbit

Respiratory sensitisation No data available

Skin sensitisation Irritating to skin.

Skin sensitisation

SmartBlock®; SmartBlock® 98% Technical, 3-Decen-2-one Result: Not a skin sensitiser.
Species: Guinea pig

Germ cell mutagenicity This product is not considered to be mutagenic. Non-mutagenic in bacterial reverse mutation assay, in an In Vivo Liver unscheduled DNA Synthesis assay and no evidence of clastogenicity or aneugenicity in the mouse micronucleus assay. Mouse lymphoma assay showed limited evidence of mutagenicity i.e. without metabolic activation only.

Mutagenicity

SmartBlock®; SmartBlock® 98% Technical, 3-Decen-2-one, Non-mutagenic

Carcinogenicity

SmartBlock®; SmartBlock® 98% Technical, 3-Decen-2-one, Not listed as being carcinogenic.

Reproductive toxicity

Not classified.

Specific target organ toxicity - single exposure

Not available.

Specific target organ toxicity - repeated exposure

Not available.

Aspiration hazard

Not applicable.

Mixture versus substance information

Not available.

Other information

Not available.

SECTION 12: Ecological information**12.1. Toxicity**

Product	Species	Test results
SmartBlock®; SmartBlock® 98% Technical, 3-Decen-2-one		
Aquatic		
<i>Acute</i>		
Algae	EC50	Algae 3.5 mg/l, 72 hours
Crustacea	EC50	Daphnia 1.68 mg/l, 48 hours
Fish	LC50	Fish 1.5 mg/l, 96 hours

12.2. Persistence and degradability

3-Decen-2-one is considered to be readily biodegradable, but fails the 10-day window.

12.3. Bioaccumulative potential

Not available.

Partition coefficient n-octanol/water (log Kow)

SmartBlock®; SmartBlock® 98% Technical, 3-Decen-2-one 3.45

Bioconcentration factor (BCF)

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects

Not available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Residual waste**

Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

EU waste code

The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Special precautions

Dispose in accordance with all applicable regulations.

SECTION 14: Transport information**ADR**

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I, as amended
Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II, as amended
Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended
Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended
Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended
Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended
Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended
Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended
Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended
Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended
Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended
Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances
Not listed.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended
Not listed.

Directive 94/33/EC on the protection of young people at work, as amended
Not listed.

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations

Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment

Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations Not available.

References Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R20 Harmful by inhalation.
R38 Irritating to skin.
H315 Causes skin irritation.
H332 Harmful if inhaled.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Training information

Follow training instructions when handling this material.

Disclaimer

AMVAC Chemical Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This information is provided for the limited guidance to the user. While AMVAC believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

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