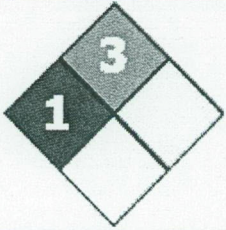







Material Safety Data Sheet

NFPA	PPE		
			

Issued Date 08-Feb-2007

Revision Date 16-Jun-2010

Revision Number: 7

1. PRODUCT AND COMPANY IDENTIFICATION

DECCO

Decco U.S. Post Harvest, Inc.
1713 S. California Ave.
Monrovia, CA 91016-0120

Emergency Telephone Number

Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 673-6671 (24hrs)

Company Information

Decco U.S. Post Harvest, Inc.

Contact Information

Customer Service

Phone Number

626-358-1838

Available Hrs

8:00am - 5:00pm (PT)

Product Name

EPA Reg #

Recommended Use

Product Code

DECCO 276 EC

2792-40

Potato sprout inhibitor

24-276

2. HAZARDS IDENTIFICATION

Emergency Overview

Flammable Liquid
Harmful by inhalation, in contact with skin and if swallowed
Mild eye irritation
Vapors may cause flash fire or explosion

CAUTION

Appearance Viscous, Yellow.

Physical State Liquid.

Odor Not available

Potential Health Effects

- Inhalation
- Skin contact

Acute Effects

Isopropanol:

Prolonged or repeated contact removes oils from the skin and may dry skin causing irritation, redness and rash. High vapor concentrations may be irritating to the eyes and respiratory tract, and may result in CNS effects such as headache, dizziness, nausea, drowsiness and, in severe exposures, loss of consciousness. If swallowed, this material may cause digestive tract irritation, vomiting and CNS effects as noted above. Mild to severe lung injury may occur if this material is drawn into the lungs (aspirated) during swallowing, or during vomiting after swallowing. Symptoms of injury may include increased breathing and heart rate, coughing and related signs of respiratory distress.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Name

Chemical Name	CAS-No	Weight %	OSHA PEL
Chloropham	101-21-3	25.5	N/A
Isopropanol	67-63-0	15	980 mg/m ³ 400 ppm
Polyoxyethylene sorbitan monooleate	9005-65-6	15	N/A

4. FIRST AID MEASURES

Eye Contact

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.

Skin Contact

Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15-20 minutes.
Call poison control center or doctor for treatment advice.

Inhalation

Move person to fresh air.
If person is not breathing, call 911 or an ambulance, then give artificial respiration.
Call a poison control center or doctor for further treatment advice.

Ingestion	Call a physician or Poison Control Center immediately Have person sip a glass of water if able to swallow Do not induce vomiting unless told to do so by a poison control center or doctor Call a physician or poison control center for treatment advice. Never give anything by mouth to an unconscious person
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Notes to Physician	No information available
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5. FIRE-FIGHTING MEASURES

Flammable Explosive Properties

Flash Point Method Autoignition Temperature	40°F Pensky Martin Closed Cup Not available
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Flammability Limits in Air	Not available
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Extinguishing Media	Use: Water spray, Carbon dioxide (CO ₂), Foam, Dry chemical.
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Fire/Explosion Hazard	Firefighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear and self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use.
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Hazardous Combustion Products	Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, and other flames and ignition sources at locations distant from material handling point.
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<u>NFPA</u>	Health 1	Flammability 3	Instability 0
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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Remove all sources of ignition. Avoid contact with the skin and the eyes. Use personal protective equipment. Take precautionary measures against static discharges. Pay attention to flashback.
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Environmental Precautions	Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits..
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Methods for Clean-up	Remove all ignition sources. Use non-sparking tools. Ground and bond containers when transferring material. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal. Keep in suitable and closed containers for disposal.
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7. HANDLING AND STORAGE

7. HANDLING AND STORAGE

Handling	Keep out of reach of children. Check that all equipment is properly bonded and grounded. Do not eat, drink or smoke when using this product. Remove all sources of ignition. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Empty containers may contain hazardous residues. Avoid breathing vapors or mists. Wear personal protective equipment. Remove and wash contaminated clothing before re-use.
Storage	Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly rated, grounded and installed to satisfy electrical classification requirements. Static electricity may accumulate when transferring material. All containers must be bonded and grounded during filling and emptying operations. Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL
Isopropanol	200 ppm	980 mg/m ³ 400 ppm

Engineering Controls	Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.
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Personal Protective Equipment

Eye/face Protection

Avoid contact with eyes. Goggles.

Skin Protection

Chemical resistant gloves. Chemical resistant apron. Wear protective gloves/clothing.

Respiratory Protection

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

General Hygiene Considerations

Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Physical State Boiling Point/Range Specific Gravity Evaporation Rate Vapor Density Viscosity Bulk Density Percent Volatiles	Viscous Yellow Liquid Not available 1.0 g/cc Not available Not available 78.6 cps 8.35 lbs/gal Not available	Odor pH Melting Point/Range Solubility Vapor Pressure VOC Content Molecular Weight Percent Solids	Not available No data available Not available Miscible Not available Not available No data available No data available
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10. STABILITY AND REACTIVITY

Stability	Fire Hazard Stable under recommended storage conditions
Conditions to Avoid	Keep away from open flames, hot surfaces and sources of ignition.
Incompatible Materials	Strong acids. Strong bases.
Hazardous Decomposition Products	Carbon monoxide. Carbon dioxide (CO ₂). Nitrogen oxides (NO _x).
Possibility of Hazardous Polymerization	Hazardous polymerisation does not occur

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Chloropham:

Rats given protein deficient diets showed increased susceptibility to acute effects of this material. Repeated oral exposure produced effects on the blood of rats and mice. Long-term feeding studies in rats and dogs produced no adverse effects. No increase in skin or lung tumors was observed in mice fed this material and challenged with promoting agents on the skin. Birth defects were observed in the offspring of mice following oral exposure during pregnancy. No genetic changes were observed in tests using bacteria or animals, but changes were observed in animal cells.

Single exposure studies indicate that this material is slightly toxic if swallowed (rat LD50 3,950->5,000 mg/kg) practically non-toxic if absorbed through skin (rabbit LD50 >20,000 mg/kg) or inhaled (rat 4 hr LC50 >5 mg/l) and slightly irritating to rabbit eyes and skin.

Isopropanol:

No skin irritation was reported in humans following a single 24 hour exposure. Low doses (2.6 and 6.4 mg) given daily to human volunteers orally for 6 weeks was without adverse effects on the blood. Signs of toxicity in rodents following single oral or inhalation exposures included sensory irritation, liver effects, narcosis and CNS depression. Skin irritation and injury were observed in rabbits following repeated skin application, while sensory irritation, liver and kidney changes and narcosis were observed in rats and mice following repeated inhalation. No signs of nervous system toxicity were observed in rats or mice following repeated inhalation in rats following repeated administration in drinking water. No adverse effects were observed in dogs following repeated administration in drinking, while a decrease in body weight gain was the only adverse effect reported in rats. Long-term skin application produced no skin tumors in mice. No increase in lung tumors occurred in mice after long-term inhalation. No signs of neurotoxicity or developmental toxicity were noted in the offspring of rats exposed orally during pregnancy. No birth defects were noted in the offspring of rats and rabbits exposed orally during pregnancy, even at amounts which produced toxic effects in the mothers and offspring. Birth defects were reported in the offspring of rats exposed by inhalation during pregnancy, but only at levels which produced significant adverse effects on the mothers. No genetic changes were observed in tests using bacteria or animal cells or animals.

Single exposure studies indicate that this material is slightly to practically non-toxic if swallowed (rat LD50 4,475-7,990 mg/kg) practically non-toxic if absorbed through the skin (rabbit LD50 6,300-13,000 mg/kg) or inhaled (rat 8 hr LC50 51 mg/l), moderately irritating to rabbit eyes (15.8-27/110) and slightly irritating to rabbit skin (4 hr exposure 2/8)

Polyoxyethylene sorbitan monooleate

Single exposure studies indicate that this material is practically non-toxic if swallowed (rat LD50 33,800-54,500 mg/kg) and non-irritating to rabbit eyes and skin.

No skin allergy was observed in humans or guinea pigs following repeated exposure. Humans ingesting up to 6 g/day for over a year showed no adverse effects. Repeated exposure in the diet of rats and mice produced no adverse effects. Following long-term exposure in the diet, no effects were observed in female rats. A marginal increase in adrenal tumors in male rats in the high dose group and hyperplasia in the low dose group was considered of questionable significance. Mice experienced inflammation of the forestomach in high-dose animals, but no increase

in tumors was noted. No pathological effects were seen in a 4 generation reproduction study, but some reduction in growth rate, survival and breeding efficiency was observed. No genetic changes were observed in tests using bacteria or animal cells.

Chronic Toxicity

There are no known carcinogenic chemicals in this product

Carcinogenicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chloropham:

This material is moderately to slightly toxic to bluegill sunfish, bass and carp (LC50 8-12 mg/l). It is highly toxic to Daphnia magna (LC50 0.05 mg/l).

Chem Fate:

This material has been reported to undergo microbial degradation in soil and water..

Isopropanol:

This material is practically non -toxic to Daphnia magna (48 hr ec50 2,285 mg/l), fruit fly (48 hr - LC50 10,200 mg/l), fathead minnow (96 hr LC50 3,200-9,640 mg/l), brown shrimp (96 hr LC50 1,150 mg/l), rainbow trout (96 hr LC50 7,600 mg/l), sheephead minnow (96 hr LC50 12,100 mg/l) and mysid shrimp (96 hr LC50 4,050 mg/l).

Chem Fate:

This material will rapidly photooxidize in the atmosphere. It has been shown to be rapidly biodegradable in adapted activated sludge and fresh and salt waste water dilutions (5 day BOD in adapted sludge 99%, 20-day BOD in unadapted sludge 70-78% in fresh water and 72% in salt water). The log Pow is 0.14.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. Do not apply directly to wetlands or water.. Dispose of in accordance with all applicable federal, state, and local laws and regulations. .

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name	Isopropanol solution
Hazard Class	3
UN-No	1219
Packing Group	PG II

ICAO

14. TRANSPORT INFORMATION

UN-No	1219
Proper Shipping Name	Isopropanol solution
Hazard Class	3
Packing Group	PG II

IATA

UN-No	1219
Proper Shipping Name	Isopropanol solution
Hazard Class	3
Packing Group	PG II
ERG Code	3L

IMDG/IMO

Proper Shipping Name	Isopropanol solution
Hazard Class	3
UN-No	1219
Packing Group	PG II
EmS No.	F-E, S-D

15. REGULATORY INFORMATIONInternational Inventories

Chloropham

EINECS/ELINCS	Listed
ENCS	Listed
CHINA	Listed
KECL	Listed

Isopropanol

DSL	Listed
EINECS/ELINCS	Listed
ENCS	Listed
CHINA	Listed
KECL	Listed

Polyoxyethylene sorbitan monooleate

DSL	Listed
ENCS	Listed
CHINA	Listed
KECL	Listed

USAFederal Regulations

SARA 313

Y

Chemical Name	CAS-No	Weight %
Isopropanol	67-63-0	15

SARA 311/312 Hazardous Categorization

Chronic Health Hazard	No
Acute Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	No

Clean Water Act

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Isopropanol	67-63-0	15		Listed.		

CERCLA

Chemical Name	RQ
Isopropanol	Listed.

RCRA

Chemical Name	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Isopropanol	D001		

Pesticide Information

State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Isopropanol	Listed.	Substance no. 1076 Listed. Substance no. 2079 Listed. Substance no. 2422 Listed. Substance no. 2423 Listed. Substance no. 2425 Listed. Substance no. 2426 Listed. Substance no. 2427 Listed. Substance no. 2428 Listed. Substance no. 2429 Listed. Substance no. 2430 Listed. Substance no. 2381 Listed. Substance no. 1076 Special hazard.	Listed.	Listed.	Listed.

International Regulations

Mexico - Grade

Mexico - Grade

Chemical Name	Category	Carcinogen Status	Exposure Limits
Isopropanol			980 mg/m ³

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Not determined

Chemical Name	NPRI
Isopropanol	X

16. OTHER INFORMATION

Revision Date

16-Jun-2010

Revision Summary

Update warranty statement

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return product at once, unopened, and the purchase price will be refunded. It is impossible to eliminate all risks associated with the use of this product. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Decco US Post-Harvest, Inc. harmless from any claims relating to such factors.

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To the extent consistent with applicable law, Decco US Post-Harvest Inc. shall not be liable for any incidental, consequential, indirect, or special damages resulting from the use or handling of this product and THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF DECCO US POST-HARVEST, INC. FOR ANY AND ALL CLAIMS, LOSSES, INJURIES, OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF DECCO POST-HARVEST, INC. THE REPLACEMENT OF THE PRODUCT.

Decco US Post-Harvest, Inc., offers this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by the duly authorized representative of Decco US Post-Harvest, Inc.

End of MSDS