





# Material Safety Data Sheet

NFPA	PPE		
			

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Revision Number: 9

## 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**

**Recommended Use**

**Product Code**

APL-LUSTR® 221  
Apple wax coating  
24-221

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

Flammable Liquid  
Irritating to eyes  
Irritating to skin

Vapors may travel along ground and ignite by ignition sources distant from the handling point.

### WARNING!

**Appearance** Brown.

**Physical State** Liquid.

**Odor** Alcohol odor.

### Potential Health Effects

- Inhalation
- Skin contact

### Acute Effects

Inhalation and skin contact are expected to be the primary routes of exposure to this material. Based on single exposure animal tests, it is considered to be slightly toxic to practically non-toxic if swallowed, practically non-toxic if absorbed through skin or inhaled, moderately irritating to the eyes and slightly irritating to the skin. Prolonged or repeated contact may remove oils from the skin and cause irritation, redness and rash. High vapor concentrations may be irritating to the eyes and respiratory tract, and may result in central nervous system (CNS) effects such as headache, dizziness, nausea, drowsiness and, in severe exposure 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 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
Morpholine oleate	1095-66-5	1-20	N/A
Propylene Glycol	57-55-6	1-20	N/A
Isopropanol	67-63-0	10-40	980 mg/m <sup>3</sup> 400 ppm

## 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.  
If symptoms persist, call a physician

### Skin Contact

Wash off with warm water and soap  
If symptoms persist, call a physician

### 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**

Do not induce vomiting unless told to do so by a poison control center or doctor  
 Never give anything by mouth to an unconscious person  
 Have person sip a glass of water if able to swallow  
 Call a physician or poison control center for treatment advice.

**Notes to Physician**

No information available

**5. FIRE-FIGHTING MEASURES**

**Flammable Explosive Properties**

**Flash Point**

75°F

**Method**

Closed cup

**Autoignition Temperature**

Not available

**Flammability Limits in Air**

Not available

**Extnguishing Media**

Use: Carbon dioxide (CO2), Dry chemical, Foam.

**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. Flammable Keep product and empty container away from heat and sources of ignition Flash back possible over considerable distance

**Hazardous Combustion Products**

Carbon monoxide, Oxides of nitrogen.

**NFPA**

**Health 2**

**Flammability 3**

**Instability 0**

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions**

Remove all sources of ignition. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

**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.

**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.

**7. HANDLING AND STORAGE**

**Handling**

Avoid contact with skin, eyes and clothing. Keep away from heat, sparks and open flame. - No smoking. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Do not eat, drink or smoke when using this product. Keep out of reach of children. Check that all equipment is properly bonded and grounded..

**Storage**

Keep in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Protect from sunlight and store in well-ventilated place. Static electricity may accumulate when transferring material. All containers must be bonded and grounded during filling and emptying operations..

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL
Isopropanol	200 ppm	980 mg/m <sup>3</sup> 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 .

**Personal Protective Equipment****Eye/face Protection**

Avoid contact with eyes. Goggles.

**Skin Protection**

Rubber gloves. 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**

Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Brown	<b>Odor</b>	Alcohol odor
<b>Physical State</b>	Liquid	<b>pH</b>	(+/- 0.2) 8.4
<b>Boiling Point/Range</b>	82°C	<b>Melting Point/Range</b>	Not available
<b>Specific Gravity</b>	0.997	<b>Solubility</b>	Soluble
<b>Evaporation Rate</b>	Not available	<b>Vapor pressure</b>	Not available
<b>Vapor Density</b>	Not available	<b>VOC Content</b>	Not available
<b>Viscosity</b>	22.0 (+/-5) cps	<b>Molecular Weight</b>	No data available
<b>Bulk Density</b>	8.31	<b>Percent Solids</b>	19.5 +/-0.5
<b>Percent Volatiles</b>	77%		

## 10. STABILITY AND REACTIVITY

**Stability**

Stable under recommended storage conditions

**Conditions to Avoid**

Heat, flames and sparks. Extremes of temperature and direct sunlight. Keep away from children.

**Incompatible Materials**

Acids. Strong bases.

**Hazardous Decomposition Products**

Carbon monoxide. Nitrogen oxides (NOx).

**Possibility of Hazardous Polymerization**

Hazardous polymerisation does not occur

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

## Component Information

### 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)

### Morpholine oleate:

No toxic or carcinogenic effects were observed in mice following repeated exposure in their drinking water.

### Propylene glycol:

Single exposure studies indicate that this material is practically non-toxic if swallowed (rat LD50 21,000 mg/kg) or absorbed through skin (rabbit LD50 20,800 mg/kg) and slightly irritating to rabbit eyes and skin.

This material is widely used in antifreeze, hydraulic fluids, pharmaceutical solvents, food and cosmetics. Workplace experience has shown this material to have low acute and systemic toxicity. Human patch tests indicate that repeated contact causes mild irritation. Although there have been some reports of skin sensitization, studies with large groups of humans and use in topical medical applications suggest that these are likely irritant rather than sensitization responses.

Repeated administration in the diet or through drinking water to rats and dogs showed essentially no adverse effects other than slight liver toxicity. Similar studies in cats showed increase in Heinz body formation in the red blood cells without anemia. Long-term oral studies in rats, dogs, and cats have shown no evidence of carcinogenic or target organ effects other than increased red blood cell turnover. Long-term inhalation exposure in monkeys showed no adverse effects. Developmental toxicity studies in mice, rats, rabbits and hamsters showed no increased birth defects or other adverse effects on the fetus. Mice and cats had no adverse effects on reproductive ability or development and survival of offspring. No

genetic changes were observed in tests using bacteria, animal cells, or animals.

**Chronic Toxicity**

There are no known carcinogenic chemicals in this product

**Carcinogenicity**

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Propylene glycol:

This material is practically non-toxic to rainbow trout (LC50 >50,000 mg/l), guppies (LC50 > 10,000 mg/l), goldfish (LC50 >5,000 mg/l) and Daphnia magna (LC50 >10,000 mg/l)..

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**

Dispose of in accordance with local regulations. 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..

**Contaminated Packaging**

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

**14. TRANSPORT INFORMATION**

**DOT**

Not regulated as per 173.150 (e) of 49 CFR.

**ICAO**

<b>UN-No</b>	1866
<b>Proper Shipping Name</b>	Resin solution
<b>Hazard Class</b>	3
<b>Packing Group</b>	PG III

**IATA**

<b>UN-No</b>	1866
<b>Proper Shipping Name</b>	Resin solution
<b>Hazard Class</b>	3

## 14. TRANSPORT INFORMATION

Packing Group PG III  
ERG Code 3 L

IMDG/IMO

Proper Shipping Name Resin solution  
Hazard Class 3  
UN-No 1866  
Packing Group PG III  
EmS No. F-E, S-E

## 15. REGULATORY INFORMATION

International Inventories

Morpholine oleate

DSL Listed  
EINECS/ELINCS Listed  
CHINA Listed  
KECL Listed

Propylene Glycol

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

Isopropanol

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

USAFederal Regulations

SARA 313

Y

Chemical Name	CAS-No	Weight %
Isopropanol	67-63-0	10-40

SARA 311/312 Hazardous Categorization

Chronic Health Hazard No  
Acute Health Hazard Yes  
Fire Hazard Yes  
Sudden Release of Pressure Hazard No  
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 Depleters	Class 2 Ozone Depleters
Propylene Glycol	57-55-6	1-20		Listed.		
Isopropanol	67-63-0	10-40		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
Propylene Glycol			Listed.		Listed.
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 <sup>3</sup>

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 section 9

**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.

To the extent consistent with applicable law, Decco US Post-Harvest Inc. makes no warranties or merchantability or of fitness for a particular purpose nor any other express or implied warranty except as stated on this MSDS.

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**