

Uline

Pallet Covers (All Mil Grades)

NFPA



HMIS

HEALTH	0
FIRE	1
REACTIVITY	0
PPE	

Manufacturer MSDS Number: NOVA-0029

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Pallet Covers (All Mil Grades)

Distributor Name: Uline

Manufacturer MSDS Revision Date: July 27, 2004

Revision: 2.00

Trade Names:

NOVAPOL® Polyethylene- (All Grades)

Synonyms:

HDPE, LDPE, LLDPE, LMDPE, Polyethylene resins, ethylene polymers

Chemical Family: Polymer

Chemical Formula: (CH₂)(CH₂)_x

Distributor Name: Uline

Distributor Address:

2200 S. Lakeside Drive
Waukegan, IL 60085

In case of Emergency
1-800-424-9300 (CHEMTREC-USA)
1-613-996-6666 (Canutec-Canada) (24 hours)

Distributor Telephone: 1-800-295-5510

General Use:

Thermoplastic resin extruded into film, sheet or pipe, or molded into bottles, containers, lids and other items.

Chemical Name:

Polyethylene

NOVA Chemical®

HMIS Ratings:

Hazard Scale:

0 = Minimal

1 = Slight

2 = Moderate

3 = Serious

4 = Severe

* = Chronic hazard

NFPA Ratings:

Hazard Scale:

0 = Minimal

1 = Slight

2 = Moderate

3 = Serious

4 = Severe

NFPA

Health: 0

Flammability: 1

Reactivity: 0

Other:

HMIS

Health Hazard: 0*

Fire Hazard: 1

Reactivity: 0

Personal Protection:

SECTION 2 : COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Name	CAS#	% Weight	
Polyethylene (Ethene homopolymer) *	9002-88-4	> 98%	

Comments:

* This product may also contain 1-butene, polymer with ethene (CAS # 25087-34-7), or 1-hexene, polymer with ethene (CAS # 25213-02-9).

Chemical Name	CAS#	% Weight	
Additives ***	Not Available	0-1%	

Comments:

*** Other chemical additives including antioxidants, stabilizers, processing aids and anti-static compounds may be formulated into polyethylene resin grades in a total concentration of less than 1% wt/wt.

Chemical Name	CAS#	% Weight	
Flux-calcined diatomaceous earth **	68855-54-9	0-1%	

Comments:

** Flux-calcined diatomaceous earth may contain up to 75% crystalline silica. It is added to some NOVAPOL resin grades (e.g. film resins).

This product is not considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

This material is not a controlled product under Canadian WHMIS regulations.

This material is not regulated as a hazardous material for transportation.

See Section 8 for applicable exposure limits. See Section 11 for applicable toxicity data.

SECTION 3 : HAZARDS IDENTIFICATION

Emergency Overview:

CAUTION: Product is a clear to white solid, in a granular powder or pellet form having minimal odor. Dusts and heat-released air emissions may be irritating to the eyes, skin, and respiratory system. Powders or fines may form explosive air-dust mixtures. Spilled product may create a dangerous slipping hazard. Keep released pellets away from storm sewers and from other entry into aquatic systems. Under fire conditions, product will readily burn and emit a heavy, irritating smoke. Contact with molten material may cause serious thermal burns.

HMIS Ratings:

Health: 0*

Fire: 1

Physical Hazard: 0

Hazard Scale:

0 = Minimal

1 = Slight

2 = Moderate

3 = Serious

4 = Severe

* = Chronic hazard

NFPA Ratings:

Health: 0

Fire: 1

Reactivity: 0

Hazard Scale:

0 = Minimal

1 = Slight

2 = Moderate

3 = Serious

4 = Severe

Applies to All Ingredients:

Potential Health Effects:

Eye Contact:

Contact of powder or fines with eye may cause mechanical irritation. Contact with hot or molten material may cause severe injury, including possible blindness.

Skin Contact:

Contact of powder or fines with skin may cause mild to more serious irritation, that is increased by mechanical rubbing or if skin is dry. Contact with hot or molten material may cause severe thermal burns.

Inhalation:

Inhalation of fine particles may cause respiratory irritation. Fumes produced while thermal processing may cause irritation, pulmonary edema and a possible asthma-like response. The crystalline silica is inextricably bound or coated in the polyethylene; this appears to prevent any toxic reaction to the lungs.

Ingestion:

Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

SECTION 4 : FIRST AID MEASURES

Eye Contact:

Remove contact lenses, if worn. Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Do not rub. Seek medical attention if irritation persists.

Skin Contact:

Remove dusty or contaminated clothing. Wash affected area with mild soap and water. Apply moisturizers to prevent excessive drying. Seek medical attention if irritation persists.

Hazardous Skin Contact: In case of contact with molten product, cool rapidly with water and seek immediate medical attention. DO NOT attempt to remove molten product, or molten product that has cooled, from skin because skin will tear easily.

Inhalation:

Move person to non-contaminated air. Assist breathing if necessary. Seek medical attention if unconscious, or if other symptoms persist. Inhalation of smoke following a fire may result in delayed pulmonary edema; seek immediate medical attention.

Ingestion:

Material is not expected to be absorbed from the gastrointestinal tract. Do not induce vomiting. Seek medical attention if any discomfort or other symptoms persist.

Note to Physicians:

Burns should be treated as thermal burns. Molten resin will come off as healing occurs; therefore, immediate removal from the skin is not necessary. Treatment for overexposure should be directed at controlling the symptoms and clinical condition of the patient. Unless symptoms reappear, no further treatment is required. Ingested material should pass through the digestive system without injury. The crystalline silica is inextricably bound or coated in the polyethylene; this appears to prevent any toxic reaction to the lungs.

SECTION 5 : FIRE FIGHTING MEASURES

Fire:

General Fire Hazards:

Solid pellets support combustion but do not meet combustible definition. Under fire conditions, product will readily burn and emit a heavy, irritating black smoke. High concentration of airborne powders or dust may form explosive mixture with air.

Explosion:

Powders or dusts may form an explosive mixture with air. Risk of dust-air explosion is increased if flammable vapors are also present. May accumulate hazardous static charge.

Flash Point:

Not applicable

Flash Point Method:

Not applicable

Upper Flammable or Explosive Limit:

Not applicable

Lower Flammable or Explosive Limit:

Not applicable

Auto Ignition Temperature:

330 deg C-410 deg C (630 deg F-770 deg F)

Flammability Class:

Not flammable

Extinguishing Media:

Water fog or water spray. For small fires can also use dry chemical or carbon dioxide or foam. Avoid high pressure, direct water stream that may spread molten or burning resins.

Hazardous Combustion Byproducts:

Carbon dioxide, carbon monoxide, aldehydes, acrolein and small amounts of other organic vapors may be produced. Inhalation of these decomposition products may be hazardous.

Fire Fighting Instructions:

Position upwind. Keep unnecessary personnel away. Set up to fight fire at a safe distance. Firefighters should wear full protective clothing including self-contained breathing apparatus. Avoid inhaling combustion products. Cool fire exposed vessels with cold water. Control runoff waters to prevent entry of plastic pellets into sewers, drains, and waterways. Seek medical attention for burns due to contact with molten material.

Fire Fighting Equipment:

Position upwind. Keep unnecessary personnel away. Set up to fight fire at a safe distance. Firefighters should wear full protective clothing including self-contained breathing apparatus. Avoid inhaling combustion products. Cool fire exposed vessels with cold water. Control runoff waters to prevent entry of plastic pellets into sewers, drains, and waterways. Seek medical attention for burns due to contact with molten material.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Spill Cleanup Measures:

Special Procedures:

Contact local police/emergency services and appropriate emergency telephone numbers provided in Section 1. Ensure that statutory and regulatory reporting requirements in the applicable jurisdiction are met. Individuals without appropriate protective equipment should be excluded from area of spill until cleanup has been completed. Wear appropriate protective equipment and clothing during clean-up.

Large Spill:

Stop leak, contain spill, and prevent entry into sewers and waterways. Spilled product may create a dangerous slipping hazard. Isolate, contain, and recover. Use appropriate instruments to put the spilled material in an appropriate recovery or disposal container. Reuse or recycle where possible. Consult your local or regional authorities. Comply with any applicable regulations.

Small Spill:

Stop leak, contain spill, and prevent entry into sewers, and waterways. Spilled product may create a slipping hazard. Use appropriate tools to put the spilled solid in an appropriate disposal or recovery container. Reuse or recycle where possible. Consult your local or regional authorities. Comply with any applicable regulations.

Evacuation Procedures:

Isolate area. Keep unnecessary personnel away. Extinguish or remove possible ignition sources.

SECTION 7 : HANDLING and STORAGE

Handling:

Handle in contained and properly designed equipment systems. Use with adequate ventilation. Avoid processing material over 300 deg C (572 deg F). Avoid ingestion and inhalation. Keep away from uncontrolled heat and incompatible materials. Ground all material handling and transfer equipment to dissipate build-up of static electricity. Keep handling areas free of loose pellets and dust build-up. Every effort should be made to prevent the accumulation of powders or fine dusts around material handling systems. For additional information on control of static and minimizing potential dust and fire hazards, refer to NFPA-654 "Standard for the Prevention of Fire and Dust Explosions in Chemical, Dye, Pharmaceutical and Plastics Industries." Spilled product may create a dangerous slipping hazard.

Storage:

Storage area should be clearly identified, well illuminated, clear of obstruction and accessible only to trained and authorized personnel. Store in closed, grounded and properly designed vessels, away from uncontrolled heat and incompatible materials. Avoid accumulation of dust by frequent cleaning and suitable construction of storage and handling areas. Keep shovels and vacuum systems readily available for clean up of loose material. Do not enter filled bulk containers and attempt to walk over product, due to risk of slipping and possible suffocation. Use a fall arrest system when working near open bulk containers.

Incompatibility:

May react with strong oxidizing agents. Organic solvents, ether, gasoline, lubricating oils, chlorinated hydrocarbons and aromatic hydrocarbons may react with and degrade polyethylene. Powders or dusts may form an explosive mixture with air. Risk of dust-air explosion is increased if flammable vapors are also present.

SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Ventilation should effectively remove and prevent buildup of any dust or heated vapors generated from the handling and processing of this product. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Routine Handling:

Skin/Hands/Feet: To avoid burns from contact with molten product, use thermal insulating gloves and other protective clothing (such as long sleeved shirts and long pants). Safety footwear with good traction is recommended to help prevent slipping.

General: Personal protective equipment (PPE) should not be considered a long-term solution to exposure control. Employer programs to properly select, fit, maintain, and train employees to use equipment must accompany PPE. Consult a competent industrial hygiene resource, the PPE manufacturer's recommendation, and/or applicable regulations to determine hazard potential and ensure adequate protection.

Eye/Face Protection:

Wear safety glasses during normal handling. Wear face shield during thermal processing if contact with molten materials is likely.

Respiratory Protection:

When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate NIOSH approved respiratory protection must be provided.

Exposure Limits:

A: General Material Information:

Refer to published exposure limits - utilize effective control measures and PPE to maintain worker exposure to concentrations that are below these limits. Note: In this product, any crystalline silica content is inextricably bound or coated in the polyethylene. This appears to prevent any toxic reaction to the lungs. Thus the ACGIH exposure limits for Particulates (Insoluble) Not Otherwise Specified (PNOS) are considered applicable.

B: Component Exposure Limits:

ACGIH, OSHA, NIOSH, EPA, TSCA, Alberta, and Ontario exposure limit lists have been checked for major components listed with CAS registry numbers. Other exposure limits may apply, check with proper authorities.

Polyethylene (Ethene homopolymer) * (9002-88-4):

Alberta:

10 mg/m³ TWA (total particulate); 3 mg/m³ TWA (respirable particulate) (related to Particulates not otherwise regulated)

Ontario:

10 mg/m³ TWAEV (inhalable particulate, containing no asbestos and less than 1% crystalline silica); 3 mg/m³ TWAEV (respirable particulate, containing no asbestos)

and less than 1% crystalline silica) (related to Particulates (insoluble) Not Otherwise Classified (PNOC))

Flux-calcined diatomaceous earth ** (68855-54-9):

ACGIH:

0.05 mg/m³ TWA (respirable fraction) (related to Silica, crystalline, quartz) 0.025 mg/m³ TWA (respirable fraction); A2 - Suspected human carcinogen; TLV basis: silicosis, fibrosis (related to Silica, crystalline, a-Quartz) (Notice of Intended Changes)

Alberta: 0.1 mg/m³ TWA (respirable particulate) (related to Quartz)

Ontario: 0.10 mg/m³ TWAEV (designated substance regulation) (related to Silica, quartz)

Ingredient Guidelines

Ingredient: Polyethylene (Ethene homopolymer) *

Guideline Type: OSHA PEL-TWA

Guideline Information: 15 mg/m³ (total dust); 5 mg/m³ (respirable fraction) (related to Particulates not otherwise regulated)

Guideline Type: ACGIH TLV-TWA

Guideline Information: 10 mg/m³ (inhalable particles); 3 mg/m³ (respirable particles) (related to Particulates (insoluble or poorly soluble) not otherwise specified (PNOS))

Ingredient: Flux-calcined diatomaceous earth **

Guideline Type: OSHA PEL-TWA

Guideline Information: 0.1 mg/m³ (respirable dust) (related to Silica-crystalline, quartz)

Guideline Type: NIOSH REL-TWA

Guideline Information: 0.05 mg/m³ (respirable dust) (related to Silica, crystalline) 50 mg/m³ IDLH (respirable dust) (related to Silica, crystalline, quartz)

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Physical State/Appearance:

Solid, pellets, or granules

Color:

Clear to white

Odor:

Minimal, sweet

pH:

Not applicable

Vapor Pressure:

Not applicable

Vapor Density:

(Air=1): Not applicable

Boiling Point:

Not applicable

Melting Point:

105 deg C - 135 deg C (221 deg F - 275 deg F)

Solubility:

(H₂O): Insoluble

Specific Gravity:

(Water=1): 0.905 - 0.965

Softening Point:

85 deg C - 127 deg C (185 deg F - 261 deg F)

Flashpoint:

Not applicable

Auto Ignition Temp:

330 deg C-410 deg C (630 deg F-770 deg F)

Upper Flammable Explosive Limit:

Not applicable

Lower Flammable Explosive Limit:

Not applicable

Dispersion properties:

Is not dispersed in cold water, hot water, solvents

SECTION 10 : STABILITY AND REACTIVITY

Chemical Stability:

Considered to be a stable material.

Conditions to Avoid:

Chemical Stability: Avoid strong oxidizing agents. Avoid processing material over 300 deg C (572 deg F).

Incompatibilities with Other Materials:

May react with strong oxidizing agents. Organic solvents, ether, gasoline, lubricating oils, chlorinated hydrocarbons and aromatic hydrocarbons may react with and degrade polyethylene. Powders or dusts may form an explosive mixture with air. Risk of dust-air explosion is increased if flammable vapors are also present.

Hazardous Polymerization:

Not likely to occur.

Hazardous Decomposition Products:

Upon heating, polyethylene may emit various oligomers, waxes and oxygenated hydrocarbons as well as carbon dioxide, carbon monoxide and small amounts of other organic vapors (aldehydes, acrolein). Inhalation of these decomposition products may be hazardous.

Corrosivity:

Product is not corrosive.

SECTION 11 : TOXICOLOGICAL INFORMATION

Applies to all ingredients:

Acute Health Effects:

General Material Information:

Material is considered essentially inert and non-toxic. Exposures to high levels of dust or heated fumes may cause irritation and possible pulmonary edema. Contact with molten material may cause serious burns.

Chronic Effects:

General Material Information:

Product has minimal chronic toxicity. Most polyethylene dust particles are large and non-respirable. Target organ is the respiratory system. There are no reported reproductive or genetic effects.

The following information has been found for its components. However, the product is expected to present a lesser degree of hazard since the hazardous components are incorporated in a polymer matrix:

Flux-calcined diatomaceous earth/crystalline silica - IARC has classified crystalline silica as a Group 1 (carcinogenic to humans). However, the crystalline silica is considered bound into the polyethylene; this appears to prevent any toxic reaction to the skin or lungs.

Carcinogenicity:

ACGIH, IARC, OSHA, and NTP carcinogen lists have been checked for selected similar materials or those components with CAS registry numbers.

Polyethylene (Ethene homopolymer) *:

Inhalation Effects:

Inhalation LC50 Mouse: 12 g/m³/30M

Carcinogenicity:

IARC: Supplement 7, 1987; Monograph 19, 1979 (Group 3 (not classifiable))

Flux-calcined diatomaceous earth **::

Carcinogenicity:

ACGIH: A2 - Suspected Human Carcinogen (related to Silica, crystalline - Quartz)

NTP: Known Carcinogen (related to Silica, crystalline (respirable size))

IARC: Monograph 68, 1997 (inhaled in the form of quartz or cristobalite from occupational sources) (related to Silica, quartz)

Monograph 68, 1997 (related to Silica, crystalline (general form)) (Group 1 (carcinogenic to humans))

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

Polyethylene is an essentially biologically inert solid and considered non-toxic. It is stable (does not decompose) in landfills or in aquatic systems.

Environmental Fate:

If released into watercourses, most polyethylene pellets float. Pellets are persistent in aquatic and terrestrial systems. Product should be recovered from water and land following spills.

Mobility:

This product has not been found to migrate through soils.

Persistence/Degradability: Product does not readily degrade. Under optimal oxidation conditions, > 99% of polyethylene will remain intact after exposure to microbial actions. Product will slowly change (embrittle) in the presence of sunlight, but will not fully breakdown. Product buried in landfill has been found to be stable over time. No toxic degradation products are known to be produced.

Bioaccumulation/Accumulation: Pellets may accumulate in the digestive systems of birds and aquatic life, causing injury and possible death due to starvation.

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste Disposal:

U.S./Canadian Waste Number & Descriptions:

General Material Information:

This product is not known to generate hazardous wastes according to US RCRA and Canadian CEPA regulations. The use, mixing or processing of this material may alter this product. Check federal, provincial/state and local environmental regulations prior to disposal.

Consider reduction of non-hazardous wastes by 1) clean and reuse where possible 2) recover and resale through recycled plastic or scrap brokers 3) incinerate with heat recovery and 4) landfill. Recycling and disposal by incineration must be in accordance with applicable regulations. **DO NOT ATTEMPT TO DISPOSE OF BY UNCONTROLLED INCINERATION.** Open burning of plastics at landfills is not acceptable.

Component Waste Numbers:

No EPA Waste Numbers are applicable for this product's components.

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name:

Not regulated as a Hazardous Material for Transportation.

IATA Shipping Name:

Not regulated as a Dangerous Good for Transportation.

Canadian TDG Information:

Shipping Name: Not regulated as a Dangerous Good for Transportation.

ICAO Regulations:

Shipping Name: Not regulated as a Dangerous Good for Transportation.

International Maritime Dangerous Goods (IMDG) Regulations:

Shipping Name: Not regulated as a Dangerous Good for Transportation.

SECTION 15 : REGULATORY INFORMATION

Applies to All Ingredients:

TSCA 8(b): Inventory Status

Component: Polyethylene (1-Hexene, polymer with ethene)

CAS #: 25213-02-9

US - TSCA: Yes

Component: Polyethylene (1-Butene, polymer with ethene)

CAS #: 25087-34-7

US - TSCA: Yes

Section 302:

None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A)

Section 304:

None of this product's components are listed under CERCLA (40 CFR 302.4).

Section 313 Toxic Release Form:

None of this product's components are listed under SARA Section 313 (40 CFR 372.65)

OSHA 29 CFR 1200:

USA OSHA Hazard Communication Class:

This product is not considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

This product is not considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

US Federal:

USA Federal & State Regulations:

The EPA Storm Water Regulations classify resin pellets as "significant materials". Prevent pellets from entering drains, ditches or waterways.

For NOVAPOL resin grade specific information including food contact compliance statements, please contact your sales representative or refer to NOVA Chemicals' NOVAPOL resin Product Data Sheets. Emission reporting and/or occupational safety & health programs may be required by Federal or state regulations. Check applicable regulations.

State:

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Canada WHMIS:

Component: Polyethylene (1-Hexene, polymer with ethene)

CAS #: 25213-02-9

CANADA - DSL: Yes

Component: Polyethylene (1-Butene, polymer with ethene)

CAS #: 25087-34-7

CANADA - DSL: Yes

Canadian Regulations - Federal and Provincial:

For NOVAPOL resin grade specific information including food contact compliance statements, please contact your sales representative or refer to NOVA Chemicals' NOVAPOL resin Product Data Sheets.

WHMIS Classification:

Workplace Hazardous Materials Information Systems (WHMIS): This product has been classified in accordance with Canadian Controlled Product Regulations (CPR) hazard criteria and this MSDS contains complete CPR-required information. Not controlled under WHMIS.

Provincial Regulations:

Emission reporting and/or occupational safety & health programs may be required by Federal or provincial or municipal regulations. Check applicable regulations. Under the Alberta Environmental Protection and Enhancement Act - Release Reporting Guideline June 2001, "Persistent Plastics" are reportable when entering a watercourse.

This material is not a controlled product under Canadian WHMIS regulations.

European Community Chemical Inventory Status:

Components of this product have been checked against the following Chemical Control Inventories.

Components not identified on European Inventory of Existing Commercial Chemical Substances (EINECS) are exempt from the listing (i.e. as polymers whose monomers are listed).

Consult your NOVA Chemicals representative for further regulatory information.

Component: Polyethylene (1-Hexene, polymer with ethene)

CAS #: 25213-02-9

EU - EINECS: Exempt

Component: Polyethylene (1-Butene, polymer with ethene)

CAS #: 25087-34-7

EU - EINECS: Exempt

Polyethylene (Ethene homopolymer) *:

TSCA 8(b): Inventory Status (Yes/No): Yes

Canada DSL: Yes

European Community Chemical Inventory Status:

EU - EINECS: Exempt

Flux-calcined diatomaceous earth **:

TSCA 8(b): Inventory Status (Yes/No): Yes

State:

USA Right-to-Know:

The following components appear on one or more of the following state hazardous substances lists. Some components (including those present only in trace quantities, and therefore not listed in this document) may be included on the Right To Know lists of other U.S. states. The reader is therefore cautioned to contact his or her NOVA Chemicals representative or NOVA Chemicals' Product Integrity group for further U.S. State Right To Know information.

Component: Flux-calcined diatomaceous earth ** (1related to Silica, Quartz)
(2related to Quartz)

CAS: 68855-54-9

NJ: Yes¹

PA: Yes²

Canada WHMIS:

WHMIS Ingredient Disclosure List (IDL):

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List (IDL):

Component: Flux-calcined diatomaceous earth **

CAS Number: 68855-54-9

Minimum Concentration:

1 % (English Item 1402, French Item 1489)

1 % (English Item 1406, French Item 1491)

(Related to Silica-crystalline, quartz)

Canada DSL: Yes

European Community Chemical Inventory Status:

EU - EINECS: Yes

SECTION 16 : ADDITIONAL INFORMATION

HMIS:

Health Hazard: 0* = Minimal (* = Chronic hazard)

Fire Hazard: 1 = Slight

Reactivity: 0 = Minimal

NFPA:

Fire Hazard: 1 = Slight

Health: 0 = Minimal

Reactivity: 0 = Minimal

Label Hazard Warning:

CAUTION Product is a clear to white solid, in a granular powder or pellet form having minimal odor. Dusts and heat-released air emissions may be irritating to the eyes, skin, and respiratory system. Powders or fines may form explosive air-dust mixtures. Spilled product may create a dangerous slipping hazard. Keep released pellets away from storm sewers and from other entry into aquatic systems. Under fire conditions, product will readily burn and emit a heavy, irritating smoke. Contact with molten material may cause serious thermal burns.

Label Precautions:

IN CASE OF A LARGE SPILL: Stop leak, contain spill, and prevent entry into sewers and waterways. Spilled product may create a dangerous slipping hazard. Use appropriate instruments to put the spilled material in an appropriate recovery or disposal container. Reuse or recycle where possible. Consult your local or regional authorities.

Label First Aid:

SKIN: Remove dusty or contaminated clothing. Wash affected area with mild soap and water. Apply moisturizers to prevent excessive drying. Seek medical attention if irritation persists. If irritation persists, get medical attention. In case of contact with molten product, cool rapidly with water and seek immediate medical attention. Do not attempt to remove molten product from skin, or molten product that has cooled, from skin because skin will tear easily.

EYES: Remove contact lenses. Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Do not rub. Seek medical attention if irritation persists.

INHALATION: Move person to non-contaminated air. Assist breathing if necessary. Seek immediate medical attention if unconscious or if any other symptoms persist.

INGESTION: Do not induce vomiting. Seek medical attention if discomfort or other symptoms persist.

MSDS Revision Date:

July 27, 2004
Revision: 2.00

MSDS Author:

MSDS Update by: ChemADVISOR
Reviewed: NCC Business contacts

Verified by Product Steward on July 27, 2004

Disclaimer:

Notice to Reader:

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References:

Available on request.

Special Considerations:

Exposure to the Hazardous Combustion and Decomposition Products as described in MSDS Sections 5 and 10 may be linked with various acute and chronic health effects. These effects include irritation of eyes and upper respiratory tract primarily from the aldehydes; breathing difficulties, systemic toxicity such as liver, kidney, and central nervous system effects.

NOVA Chemicals has monitored worker exposures to emissions during commercial scale processing polyethylene. Concentrations of hazardous decomposition products were determined to be well below established exposure limits in the workplace. This information is available on request in a NOVA Chemicals' report, "Quantitation of Employee Exposure to Volatile Emission Products Generated by Commercial-Scale Processing of Polyethylene".

For information on ventilation considerations for the control of volatile air contaminants from polyethylene, please request a copy of NOVA Chemicals' publication "Ventilation Guidelines for Heat Processing Polyethylene".

For additional information on unloading hopper cars containing plastic resins, refer to NOVA Chemicals' 'A Guide to Railcar Unloading.'

For information on processing properties, selection of NOVAPOL resin grades, refer to the NOVAPOL Product Data Sheets.

For additional information on preventing pellet loss, refer to published plastic industry publications and resources under 'Operation Clean Sweep', now downloadable from the web @ <http://www.opcleansweep.org/>.

For additional information of control of static and minimizing potential dust and fire hazards, refer to NFPA-654 "Standard for the Prevention of Fire and Dust Explosions in Chemical, Dye, Pharmaceutical and Plastics Industries"

Key/Legend:

ACGIH = American Conference of Governmental Industrial Hygienists

BOD = Biochemical Oxygen Demand

CAS = Chemical Abstracts Service
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
CPR = Controlled Products Regulations
DOT = Department of Transportation
DSL = Domestic Substances List
EINECS = European Inventory of Existing Commercial Substances
EPA = Environmental Protection Agency
EU = European Union
FDA = Food and Drug Administration
IARC = International Agency for Research on Cancer
IDL = Ingredient Disclosure List
Kow = Octanol/water partition coefficient
LEL = Lower Explosive Limit
NIOSH = National Institute for Occupational Safety and Health
NJTSR = New Jersey Trade Secret Registry
NTP = National Toxicology Program
OSHA = Occupational Safety and Health Administration
RCRA = Resource Conservation and Recovery Act
SARA = Superfund Amendments and Reauthorization Act
TDG = Transportation of Dangerous Goods
TSCA = Toxic Substances Control Act.

HMIS Ratings:

Hazard Scale:

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Severe
* = Chronic hazard

NFPA Ratings:

Hazard Scale:

0 = Minimal
1 = Slight
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