Section 1 - Identification of the Substance/Preparation and of the Company

Synonyms: HDPE, LDPE, LLDPE, LMDPE, MDPE Polyethylene resins, ethylene polymers  
Chemical Name: Polyethylene  
Chemical Family: Polymer  
Material Use: Thermoplastic resin extruded into film, sheet or pipe, or molded into bottles, containers, lids and other items.  
Chemical Formula: (CH₂)₅(CH₂)₆

NOVA Chemicals (International) SA  
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1700 Fribourg  
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Asia Pacific: +65 633 44 177 (NCEC)(24 hours)  
China: +86 10 51003039 (NCEC)(24 hours)

Section 2 - Hazards Identification

Human and Environmental Hazards  
This product has been classified for the European Union according to Annex VI and Directive 67/548/EEC.  
This product is a preparation containing polymers and additives. Although it may contain components that may be classified, the product does not present a danger to human health by inhalation, ingestion or contact with the skin or to the aquatic environment in the form in which it is placed on the market. Based upon Article 12 of Directive 1999/45/EC such preparations do not require labelling.

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

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

Potential Health Effects: Skin  
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. The crystalline silica / talc is inextricably bound or coated in the polyethylene; this appears to prevent any toxic reaction to the skin.

Potential Health Effects: Ingestion  
Ingestion of this product is unlikely. However, ingestion of product may produce mild gastrointestinal irritation and disturbances.

Potential Health Effects: 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 / talc is inextricably bound or coated in the polyethylene; this appears to prevent any toxic reaction to the lungs.

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

Material Name: NOVAPOL® Polyethylene- Not Colored (All Grades)
SDS ID: NOVA-0029EUEN

Section 3 - Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>EC #</th>
<th>Component</th>
<th>Percent by Wt.</th>
<th>Symbols</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Polyethylene (Ethene homopolymer) *</td>
<td>&gt;98</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>9002-88-4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>272-489-0 / 238-877-9</td>
<td>Flux-calcined diatomaceous earth and/or Tale (Hydrated Magnesium Silicate) **&lt;br&gt;68855-54-9 / 14807-96-6</td>
<td>0-1</td>
<td>T</td>
<td>R:49</td>
</tr>
<tr>
<td></td>
<td>Additives ***</td>
<td>0-1</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Additional Information


* This product may also be described as 1-Butene, polymer with ethene (CAS # 25087-34-7) or as 1-Hexene, polymer with ethene (CAS # 25213-02-9). Ethene and ethylene are interchangeable.

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

*** Other chemical additives including antioxidants, UV stabilizers, processing aids and slip agents may be formulated into various polyethylene resin grades in a total concentration of less than 1% wt/wt.

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

Section 4 - First Aid Measures

First Aid: Eyes
Remove contact lenses, if it can be done safely. Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention if symptoms develop or persist.

First Aid: Skin
Remove dusty or contaminated clothing and shoes. For skin contact, wash affected area with soap and water. Seek medical attention if symptoms develop or persist. 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 without medical assistance.

First Aid: Inhalation
Move affected individual to non-contaminated air. Loosen tight clothing such as a collar, tie, belt or waistband to facilitate breathing. Seek immediate medical attention if the individual is not breathing, is unconscious or if any other symptoms persist. Inhalation of smoke following a fire may result in delayed pulmonary edema; seek immediate medical attention.

First Aid: Ingestion
Material is not expected to be absorbed from the gastrointestinal tract. DO NOT INDUCE VOMITING. Loosen tight clothing such as a collar, tie, belt or waistband. Seek immediate medical attention.

First Aid: Notes to Physician
After adequate first aid, no further treatment is necessary, unless symptoms reappear. For more detailed medical emergency support information call the appropriate emergency number listed in Section 1. 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 should be directed at the control of symptoms and the clinical condition of the patient. Ingested material should pass through the digestive system without injury. The crystalline silica (if present) / talc is inextricably bound or coated in the polyethylene; this appears to prevent any toxic reaction to the skin or lungs (if inhaled).

Section 5 - Fire Fighting Measures

See Section 9: Physical Properties for flammability limits, flash point and autoignition information.

General Fire Hazards
Solid resins support combustion but do not meet combustible definition. Under fire conditions, product will readily burn and emit a heavy, irritating black smoke. A high concentration of airborne powders or dust may form an explosive mixture with air.
Safety Data Sheet

Material Name: NOVAPOL® Polyethylene - Not Colored (All Grades)  SDS ID: NOVA-0029EUN

Explosion Hazards
Accumulated fine dusts may form an explosive mixture with air. Risk of dust-air explosion is increased if flammable vapours are also present. May accumulate hazardous static charge.

Hazardous Combustion 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 vapours (e.g. aldehydes, acrolein). Inhalation of these decomposition products may be hazardous.

Extinguishing Media
Water fog or water spray. In the case of small fires, dry chemical or carbon dioxide or foam can be used. Avoid high pressure, direct water stream that may spread molten or burning resins.

Fire Fighting Equipment/Instructions
Position upwind. Keep unnecessary personnel away. Move containers from fire area if you can do so without risk. Fight fire from maximum distance or use unmanned holders or monitor nozzles. Fire fighters should wear full-face, self-contained breathing apparatus and thermal protective clothing. Avoid inhaling any smoke and combustion materials. Remove and clean or destroy any contaminated clothing. Cool containers with flooding quantities of water until well after the fire is out. Control runoff waters to prevent entry into sewers, drains, underground or confined spaces and waterways.

Section 6 - Accidental Release Measures

Personal Precautions
Avoid standing or walking on spilled product - loose pellets may cause a slipping hazard. Eliminate sources of ignition. Extinguish all flames in the vicinity. No smoking or open flames permitted in storage, use or handling areas. Dissipate static electricity during transfer or processing by proper earthing (grounding) and bonding containers and equipment.

Evacuation Procedures
Isolate area. Keep unnecessary personnel away. Alert stand-by emergency and fire fighting personnel.

Environmental Precautions
Prevent entry into ditches, sewers, and waterways.

Spills
Stop leak, isolate and contain spill. Prevent entry into sewers, drains, underground or confined spaces, water intakes and waterways. Spilled product may create a dangerous slipping hazard. Use appropriate tools to put the spilled solid in an appropriate disposal or recovery container. Reuse or recycle where possible.

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. Wear appropriate protective equipment and clothing during cleanup. Individuals without appropriate protective equipment should be excluded from area of spill until cleanup has been completed.

Other Information
Accumulated fine dusts may form an explosive mixture with air. Risk of dust-air explosion is increased if flammable vapours are also present.

See Section 8 for recommended Personal Protective Equipment and see Section 13 for waste disposal considerations.

Section 7 - Handling and Storage

Handling Procedures
Handle in contained and properly designed equipment systems. Use with adequate ventilation. Avoid ingestion and inhalation. Keep away from uncontrolled heat and incompatible materials. Earth (ground) all material handling and transfer equipment to dissipate build-up of static electricity. Keep handling areas free of loose pellets, powders and dust build-up. Every effort should be made to prevent the accumulation of powders or fine dusts around material handling systems. Accumulated powders or fine dusts may form explosive air-dust mixtures. 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 from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, 2006 Edition." Spilled product may create a dangerous slipping hazard.
Safety Data Sheet

Material Name: NOVAPOL® Polyethylene- Not Colored (All Grades)  SDS ID: NOVA-0029EUEN

Storage Procedures
Storage area should be clearly identified, well illuminated, clear of obstruction and accessible only to trained and authorized personnel. Store in closed, earthed (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 cleanup 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.

See Section 8: Exposure Controls/Personal Protection for appropriate Personal Protective Equipment. See Section 10 for information on Incompatibilities.

Section 8 - Exposure Controls / Personal Protection

Exposure Guidelines
A: General Product Information
Refer to published exposure limits - use effective control measures and PPE to maintain worker exposure to concentrations that are below these limits. Ensure that eyewash stations and safety showers are proximal to work locations.

Note: In this product, any crystalline silica / talc 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 Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) are considered applicable.

Check local regulations for applicable exposure limits.

B: Substance Exposure Limits
Polyethylene (Ethene homopolymer) (-)
ACGIH: 10 mg/m³ TWA (inhalable particles, recommended); 3 mg/m³ TWA (respirable particles, recommended) (related to Particulates (insoluble or poorly soluble) not otherwise specified (PNOS))
Netherlands: 10 mg/m³ MAC (inhalable); 5 mg/m³ MAC (respirable) (related to Nuisance particulates)

Flux-calcedined diatomaceous earth (272-489-0)
ACGIH: 0.025 mg/m³ TWA (respirable fraction) (related to Silica, crystalline, α-quartz)
France: 0.1 mg/m³ VME (inhalable fraction, listed under silica crystallines) (related to Quartz)
Germany: 0.3 mg/m³ TWA (respirable fraction)
Netherlands: 0.075 mg/m³ MAC (respirable dust) (related to Quartz)
United Kingdom: 0.9 mg/m³ STEL (respirable) (related to Silica, crystalline)

Talc (Hydrated Magnesium Silicate) (238-877-9)
ACGIH: 2 mg/m³ TWA (respirable fraction, particulate matter containing no asbestos and <1% crystalline silica)
Netherlands: 1 mg/m³ MAC (respirable dust)
United Kingdom: 1 mg/m³ TWA (respirable dust)

Engineering Controls
Engineering methods to reduce hazardous exposure are preferred controls. Methods include mechanical ventilation (dilution and local exhaust) process or personal enclosure, remote and automated operation, control of process conditions, leak detection and repair systems, and other process modifications. Ensure all exhaust ventilation systems are discharged to outdoors, away from air intakes and ignition sources. Supply sufficient replacement air to make up for air removed by exhaust systems. Administrative (procedure) controls and use of personal protective equipment may also be required.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/face
Wear safety glasses during normal handling. Wear full-face shield during thermal processing if contact with molten material is likely.
Safety Data Sheet

Material Name: NOVAPOL® Polyethylene- Not Colored (All Grades)  

Personal Protective Equipment: Skin
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.

Personal Protective Equipment: Respiratory
If engineering controls and ventilation is not sufficient to prevent build up of aerosols, vapours or dusts, appropriate air-purifying respirators or self-contained breathing apparatus (SCBA) that meets the requirements of the European Standard for Respiratory Protection (EN 149) appropriate for exposure potential should be used. Air supplied breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air purifying respirators.

Personal Protective Equipment: 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.

Section 9 - Physical & Chemical Properties

<table>
<thead>
<tr>
<th>Physical State and Appearance</th>
<th>Solid, pellets, or granular powder</th>
<th>Colour</th>
<th>Clear to white</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour</td>
<td>Minimal, sweet</td>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not applicable</td>
<td>Vapour Density @ 0°C (Air=1): Not applicable</td>
<td></td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not applicable</td>
<td>Melting Point: 105°C - 135°C</td>
<td></td>
</tr>
<tr>
<td>Solubility (H2O)</td>
<td>Insoluble</td>
<td>Specific Gravity (Water): 0.905 - 0.965</td>
<td></td>
</tr>
<tr>
<td>Dispersion Properties</td>
<td>Is not dispersed in cold water, hot water</td>
<td>Evaporation Rate (n-Butyl Acetate=1): Not applicable</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Varies: &gt;300°C</td>
<td>Softening Point: 85°C - 127°C</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
<td>Flash Point Method: Not applicable</td>
<td></td>
</tr>
<tr>
<td>Upper Flammable Limit (UFL)</td>
<td>Not applicable</td>
<td>Lower Flammable Limit (LFL): Not applicable</td>
<td></td>
</tr>
<tr>
<td>Flammability Classification</td>
<td>Not flammable</td>
<td>Auto Ignition: 330°C - 410°C</td>
<td></td>
</tr>
</tbody>
</table>

Section 10 - Stability & Reactivity Information

Chemical Stability
This product is stable under normal use conditions for shock, vibration, pressure, or temperature.

Chemical Stability: Conditions to Avoid
Avoid strong oxidizing agents. Avoid processing material over 300°C.

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 vapours are also present.

Hazardous Polymerization
Not likely to occur.

Corrosivity
Product is not corrosive.

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

Section 11 - Toxicological Information

A: Acute Toxicity – General Product 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 severe thermal burns.

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:
Safety Data Sheet

Material Name: NOVAPOL® Polyethylene- Not Colored (All Grades)  
SDS ID: NOVA-0029EUEN

Flux-calcined diatomaceous earth/crystalline silica / Talc (Hydrated Magnesium Silicate) - Inhalation may cause discomfort or irritation to the respiratory tract and nasal passages. May be irritating to eyes and skin.

B: Acute Toxicity - LD50/LC50
Polyethylene (Ethene homopolymer) (-)
Inhalation LC50 Mouse: 12 g/m3/30M
Polyethylene (1-Butene, polymer with ethene) (-)
Oral LD50 Rat: 4 g/kg
Flux-calcined diatomaceous earth (272-489-0)
Oral LD50 Rat: 500 mg/kg (related to Quartz)

C: Chronic Toxicity – General Product Information
Product has minimal chronic toxicity. Target organ is the respiratory system. Most polyethylene dust particles are large and non-respirable. There are no known or 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 - target organ is the lung and respiratory system. 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.

Talc (Hydrated Magnesium Silicate) - target organ is the lung and respiratory system. May cause chronic lung disease (talc pneumaticosis).

D: Substance Carcinogenicity
Polyethylene (Ethene homopolymer) (-)
IARC: Supplement 7 [1987], Monograph 19 [1979] (Group 3 (not classifiable))

Flux-calcined diatomaceous earth (272-489-0)
IARC: Monograph 68 [1997] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources) (related to Silica, quartz)
Monograph 68 [1997], Supplement 7 [1987] (related to Silica, crystalline (general form)) (Group 1 (carcinogenic to humans))
Monograph 68 [1997] (listed under Amorphous silica) (Group 3 (not classifiable))

Germany: Category 1 (causes cancer in man) (related to Quartz)
Netherlands: Present (respirable dust, crystalline) (related to Quartz)

Talc (Hydrated Magnesium Silicate) (238-877-9)
IARC: Monograph 93 posted (inhaled), Supplement 7 [1987], Monograph 42 [1987] (Group 3 (not classifiable))

Germany: Category 3B (could be carcinogenic for man)

Section 12 - Ecological Information

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

B: Component Analysis - Ecotoxicity - Aquatic/Terrestrial Toxicity
Talc (Hydrated Magnesium Silicate) (238-877-9)
96 Hr LC50 Brachydanio rerio: >100 g/L [semi-static]

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. 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.
Section 13 - Disposal/Recycling Considerations

Precautions
Refer to Section 7 before handling the product or containers.

Waste Code(s)
If discarded after use, this polymer does not meet the definition of a hazardous waste according to Directive 75/442/EEC.

Waste Disposal Instructions
Preferred disposal methods for polymers in order of preference are: 1) clean and reuse if possible, 2) recover and resale through plastic recyclers or resin brokers, 3) incinerate with waste heat recovery and 4) landfill. Reuse, recycling, storing, transportation and disposal must be in accordance with applicable EU/national and local regulations. DO NOT ATTEMPT TO DISPOSE OF BY UNCONTROLLED INCINERATION. Open burning of plastics at landfills is not acceptable.

See Section 7: Handling and Storage and Section 8: Exposure Controls/Personal Protection for additional handling information that may be applicable for safe handling and the protection of employees.

Waste generator is advised to carefully consider hazardous properties and control measures needed for other materials that may be found in the waste.

Section 14 - Transport Information

International Maritime Dangerous Goods (IMDG) Code
Shipping Name: NOT REGULATED as Dangerous Goods for Transportation.

International Air Transport Association (IATA) and ICAO Information
Shipping Name: NOT REGULATED as Dangerous Goods for Transportation.

US DOT Information
Shipping Name: NOT REGULATED as a Hazardous Material for Transportation.

Canadian TDG Information
Shipping Name: NOT REGULATED as Dangerous Goods for Transportation.

Section 15 - Regulatory Information

European Union Regulatory Information
Label Information
This product is a preparation containing polymers and additives. Although it may contain components that may be classified, the product does not present a danger to human health by inhalation, ingestion or contact with the skin or to the aquatic environment in the form in which it is placed on the market. Based upon Article 12 of Directive 1999/45/EC such preparations do not require labelling.

Other Information
A: General Product Information
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.

B: Component Analysis - Inventory Status

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>US - TSCA</th>
<th>CANADA - DSL</th>
<th>EU - EINECS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene (Ethene homopolymer)</td>
<td>9002-88-4</td>
<td>Yes</td>
<td>Yes</td>
<td>Exempt</td>
</tr>
<tr>
<td>Flux-calciimed diatomaceous earth</td>
<td>68855-54-9</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Talc (Hydrated Magnesium Silicate)</td>
<td>14807-96-6</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Polyethylene (1-Butene, polymer with ethene)</td>
<td>25087-34-7</td>
<td>Yes</td>
<td>Yes</td>
<td>Exempt</td>
</tr>
<tr>
<td>Polyethylene (1-Hexene, polymer with ethene)</td>
<td>25213-02-9</td>
<td>Yes</td>
<td>Yes</td>
<td>Exempt</td>
</tr>
</tbody>
</table>
Section 16 - Other Information

Information of importance for the health and safety of the user and the protection of the environment

Full text of any R phrases referred to under Section 2 and 3:

R 49 May cause cancer by inhalation

Special Considerations

Exposure to the Hazardous Combustion and Decomposition Products as described in SDS 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 of polyethylene. Concentrations of hazardous decomposition products were determined to be well below established exposure limits in the workplace. "Quantitation of Employee Exposure to Emission Products Generated By Commercial-Scale Processing of Polyethylene" is available in the Am. Ind. Hyg. Assoc. J. 56:899-814 (1995).

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 Resins".

For additional information on unloading hopper cars containing plastic resins, refer to NOVA Chemicals' publication, "Hopper Car Unloading Guide".

For information on processing properties, selection of NOVAPOL resin grades, refer to the NOVAPOL Product Data Sheets available on our web site, under PRODUCTS & SERVICES: http://www.novechem.com.

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

Polyethylene fines and dust particles are listed as a Class I combustible dust by the National Fire Protection Association (see NFPA-68, Table F.1(e)). 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 from the Manufacturing, Processing and Handling of Combustible Particulate Solids, 2006 Edition".

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

Recommended restrictions on use:

Use only as intended.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; DFG = Deutsche Forschungsgemeinschaft; DOT = Department of Transportation; DSL = Domestic Substances List; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EU = European Union; HMIS = Hazardous Materials Identification System; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Association; NTP = National Toxicology Program; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average

Safety Data Sheet Prepared by: NOVA Chemicals
Safety Data Sheet Information Phone Number: +1-412-490-4063

Reference:

Available on request.
Safety Data Sheet

Material Name: NOVAPOL® Polyethylene- Not Colored (All Grades)  SDS ID: NOVA-0029EUEN

Other Information

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This is the end of SDS # NOVA-0029EUEN.