

SAFETY DATA SHEET



Vydyne 21SPC

Section 1. Identification

GHS product identifier	: Vydyne 21SPC
Chemical name	: Polyamide solid.
Other means of identification	: Polymer
Product type	: Resin
Supplier's details	: Ascend Performance Materials Inc. 1010 Travis Street, Suite 900 Houston, TX 77002 USA 1-713-315-5700
Emergency telephone number (with hours of operation)	: Emergency phone: CHEMTREC Toll Free Within USA: 800-424-9300 or +1-703-527-3887 (USA) or +(44)-870-8200418 (UK) or 800-101-2201/ +(65)-31581349 (Singapore) or +(61)-290372994 (Australia)

Section 2. Hazards identification

OSHA/HCS status	: This material is not considered hazardous under the GHS based Hazard Communication System adopted for this country. This SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	: Not classified.
Hazards not otherwise classified	: None.

GHS label elements

Hazard pictograms	: None.
Signal word	: None.
Hazard statements	: None.

Precautionary statements

General	: Read label before use. Hazard of slipping on spilled product. Heated material can cause thermal burns.
Prevention	: Molten Material - Provide adequate ventilation, especially in closed rooms. Avoid release to the environment.
Response	: IF INHALED: Vapor from molten material - Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms occur. IF ON SKIN: If splashed by molten material, cool quickly with water and seek medical aid : do not pull off from skin. IN CASE OF A SPILL: Collect spillage.
Storage	: Store in accordance with all local, regional, national and international regulations.

Section 2. Hazards identification

- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- None.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Chemical name** : Polyamide solid.
- CAS number** : Not applicable.
- Other means of identification** : Polymer

Ingredient name	%	CAS number
Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl]	99 - 100	32131-17-2

Any additives listed above are polymer encapsulated. They do not represent an exposure hazard.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Vapor from molten material - Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms occur.
Polymer Pellets - Pellets should be carefully removed from the eye. Carefully rinse eyes with water if irritation persists.
- Inhalation** : IF INHALED: Vapor from molten material - Remove person to fresh air and keep comfortable for breathing. Get medical attention if irritation occurs.
- Skin contact** : Get medical attention if irritation occurs.
Molten Material - If splashed by molten material, cool quickly with water and seek medical aid : do not pull off from skin.
- Ingestion** : Polymer Pellets - Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Vapor from molten material - May cause mild eye irritation.
- Inhalation** : Vapor from molten material - May cause respiratory irritation.
- Skin contact** : Contact with hot material causes thermal skin burns.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Vapor from molten material - redness, watering
- Inhalation** : Vapor from molten material - coughing
- Skin contact** : Molten Material - Causes burns.
- Ingestion** : No known significant effects or critical hazards.

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO₂. Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : No known significant effects or critical hazards.

Review Section 7 of the SDS to understand the potential for a Combustible Dust Explosion and a Large Molten Mass Fire.

- Hazardous thermal decomposition products** : Fire will produce dense black acrid smoke. Decomposition products may include the following materials:
Carbon dioxide.
Carbon monoxide.
nitrogen oxides (NO, NO₂ etc.)

- Special protective actions for fire-fighters** : Fight fire with normal precautions from a reasonable distance.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Note: see section 8 for personal protective equipment and section 13 for waste disposal.
Hazard of slipping on spilled product.

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods and materials for containment and cleaning up

Vacuum or sweep up material and place in a designated, labeled waste container.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Avoid dust generation.

Handling and Processing of This Product (Combustible Dust Explosion Potential) - This product is not considered a combustible dust in the product form provided (pellets/granules) to customer. Due to friction during pellet transport, this product may contain some fine particles that could be dispersed in air. Through extended processing of or by grinding this product, an accumulation of fine particles could build up in a work area. Like most organic materials in powder form, dust generated from this product may form a flammable dust air mixture. Potential for a dust explosion may exist. Minimize the generation and accumulation of dust. Keep away from sources of ignition.

Handling and Processing of This Product (Large Molten Masses Fire Potential) - Elevated temperature processing of this product may liberate volatile chemicals. The accumulation of large molten masses of this product may ignite spontaneously in air. Water quenching of such masses is good practice.

- Conditions for safe storage, including any incompatibilities** : Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Store in accordance with all local, regional, national and international regulations.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. When handling hot material, wear heat-resistant protective gloves, clothing and face shield that are able to withstand the temperature of the molten product.

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Molten Material - Goggles, face shield or other full-face protection should be worn if there is a risk of direct exposure to aerosols or splashes or when material is handled hot.

Skin protection

- Hand protection** : Use strong, cut-resistant gloves suitable for handling metals. When handling hot material, wear heat-resistant protective gloves that are able to withstand the temperature of molten product.
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Solid. [Pellets.]
- Color** : Off-white.
- Odor** : Odorless.
: Not applicable
- pH** : Not applicable.
- Melting point** : 257 to 267°C (494.6 to 512.6°F)
- Boiling point** : Not available.
- Flash point** : Not applicable.
- Evaporation rate** : Not applicable.
- Flammability (solid, gas)** : Not applicable.
- Lower and upper explosive (flammable) limits** : Not applicable.
- Vapor pressure** : Not applicable.
- Vapor density** : Not applicable.
- Density** : 1.1 to 1.2 g/cm³
- Solubility in water** : Insoluble
- Partition coefficient (LogKow)** : Not applicable.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : >300°C (>572°F)
- Viscosity** : Not available.

Section 10. Stability and reactivity

- Reactivity** : No specific data.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.

Section 10. Stability and reactivity

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous thermal decomposition products: Refer to Section 5 of this SDS.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : Vapor from molten material - May cause mild eye irritation.
Inhalation : Vapor from molten material - May cause respiratory irritation.
Skin contact : Molten Material - Contact with hot material causes thermal skin burns.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Vapor from molten material - redness Irritation
Inhalation : Vapor from molten material - coughing
Skin contact : Molten Material - Causes burns.
Ingestion : No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Section 11. Toxicological information

Short term exposure

Potential immediate effects : Heated material can cause thermal burns.

Potential delayed effects : None known.

Long term exposure

Potential immediate effects : None known.

Potential delayed effects : None known.

Potential chronic health effects

Not available.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Conclusion/Summary : Not toxic.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. For more detailed information, please refer to the regulation. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
For more detailed information, please refer to the regulation.

Section 14. Transport information

Transport information: Not regulated.

Not Regulated for Transport. In accordance with domestic transport by ground, rail, water and international IMDG / IATA regulations.

14.1 UN number : Not applicable.

Section 14. Transport information

14.2 UN proper shipping name	:	Not regulated.
14.3 Transport hazard class(es)	:	Not applicable.
14.4 Packing group	:	Not applicable.
14.5 Environmental hazards	:	None identified.
14.6 Special precautions for user	:	Not applicable.
14.7 Bulk Storage Condition	:	Not applicable.

Section 15. Regulatory information

United States inventory (TSCA 8b) All components are active or exempted.

State regulations

Massachusetts	:	None of the components are listed.
New York	:	None of the components are listed.
New Jersey	:	None of the components are listed.
Pennsylvania	:	None of the components are listed.
California Prop. 65	:	None of the components are listed.

International regulations

Canadian lists

Canadian NPRI	:	None of the components are listed.
CEPA Toxic substances	:	None of the components are listed.
Canada inventory	:	All components are listed or exempted.

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Europe	:	Registered Substance
Japan	:	Japan inventory (ENCS): All components are listed or exempted. Japan inventory (ISHL): All components are listed or exempted.

Section 15. Regulatory information

Malaysia	: Not applicable.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
Viet Nam	: All components are listed or exempted.

Section 16. Other information

National Fire Protection Association (U.S.A.)

Product as-supplied

Health	0
Flammability	1
Instability/Reactivity	0
Special	None.

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

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Version	: 1
Prepared by	: Ascend Product Stewardship Group
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

References	: No additional information.
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Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.