

SAFETY DATA SHEET

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SECTION 1: Product and Company Identification

PRODUCT NAME: NovaClear® Polyimide Powder

MANUFACTURER/SUPPLIER:
NeXolve Holding Company, LLC
290 Dunlop Blvd, Suite 200
Huntsville, AL 35824
256-836-7780

EMERGENCY HEALTH/EMERGENCY SPILL INFORMATION:

**For Hazardous Materials [or Dangerous Goods] Incident
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 CCN702632 or
+1 703-527-3887 (collect calls accepted)**

For R&D use only. Not for drug, household or other uses.

SECTION 2: Hazards Identification

GHS Classification

Acute Toxicity, Oral (Category 5), H303
Acute Toxicity, Dermal (Category 5), H313
Eye Irritation (Category 2B), H320
Acute Toxicity, Inhalation (Category 5), H333

GHS Label elements, including precautionary statements

Pictograms:

None

Signal word: Warning

Hazard statement(s):

H303: May be harmful if swallowed

H313: May be harmful in contact with skin

H320: Causes eye irritation

H333: May be harmful if inhaled

Precautionary statement(s):

P201: Obtain special instructions before use.

P261: Avoid breathing dust.

P264: Wash hands thoroughly with soap and plenty of water after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/ protective clothing.

P304 + P312: IF INHALED: Call a POISON CENTER/doctor/... if you feel unwell.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P312 Call a POISON CENTER or doctor/ physician of you feel unwell.

P337 + P313: IF eye irritation persists: Get medical advice/attention.

P402: Store in a dry place.

P501 Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard: 1

Chronic Health Hazard: *

Flammability: 1

Physical hazards: 0

NFPA Rating

Health hazard: 1

Fire: 1

Reactivity Hazard: 0

Potential Health Effects

Inhalation May cause respiratory irritation

Skin May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

SECTION 3: Composition/information on ingredients

COMPONENT	CAS – No.	Range % by WT
NovaClear® Polyimide Powder	NA	100 %
N,N Dimethylacetamide (Residual in powder)	127-19-5	< 1%

SECTION 4: First Aid Measures**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

If swallowed

Induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: Firefighting Measures**Conditions of flammability**

Dust can form an explosive mixture in the air.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

Explosion Data**Sensitivity to Mechanical Impact**

None

Sensitivity to static discharge

Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard

SECTION 6: Accidental release measures

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum or by wet-brushing and place in container for disposal according to local regulations (see section 13).

SECTION 7: Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Wear personal protective equipment. Remove and wash contaminated clothing before re-use. Minimize dust generation and accumulation. Fine dust dispersed in air may ignite. Keep away from sources of ignition — No smoking. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store under inert gas. Hygroscopic.

SECTION 8: Exposure controls/personal protection

Components with workplace control parameters

Components	CAS-No.	Value	Control Parameters	Basis
N, N-Dimethylacetamide	127-19-5	TWA	10.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Liver damage Embryo/fetal damage Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen Danger of cutaneous absorption			
		TWA	10.000000 ppm 35.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
	Potential for dermal absorption			

		TWA	10.000000 ppm 35.000000 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	Skin designation The value in mg/m3 is approximate.			
		PEL	10 ppm 35 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
	Skin			

Biological Occupational Exposure Limits

Component	CAS-No.	Parameters	Value	Biological Specimen	Basis
N,N-Dimethylacetamide	127-19-5	N-methylacetamide	30 mg/g Creatinine	Urine	ACGIH – Biological Exposure Indices (BEI)
	Remarks	End of shift at end of workweek			

Derived No Effect Level (DNEL) N,N-Dimethylacetamide

Application Area	Exposure routes	Health Effect	Value
Workers	Skin Contact	Long – term systemic effects	13.6 mg/Kg BW/d
Workers	Inhalation	Long – term systemic effects	36 mg/m3

Predicted No Effect Concentration (PNEC) N,N-Dimethylacetamide

Compartment	Value
Soil	0.15 mg/Kg
Marine water	0.0966 mg/l
Fresh water	0.5 mg/l
Fresh water sediment	2.27 mg/Kg
Sewage treatment plant	485 mg/l
Aquatic intermittent release	5 mg/l

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

SECTION 9: Physical and chemical properties**Appearance**

Form Powder

Color Yellow

Safety data

pH no data available

Melting point/freezing point no data available

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Autoignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Vapour pressure no data available

Density no data available

Water solubility no data available

Partition coefficient:
n-octanol/water no data available

Relative vapour
density no data available

Odor no data available

Odor Threshold no data available

Evaporation rate

no data available

SECTION 10: Stability and Reactivity**Chemical stability**

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition productHazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO_x) Other decomposition products - no data available

SECTION 11: Toxicological Information**Acute toxicity****Oral LD50**

No data available

Inhalation LC50

No data available

Dermal LD50

No data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

no data available

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May causes respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May cause skin irritation.

Eyes May cause eye irritation.

SECTION 12: Ecological Information**Toxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

SECTION 13: Disposal considerations

Product

This combustible material may be burned in a chemical incinerator equipped with an Afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transportation information

DOT (US)

Not Regulated

IMDG

Not Regulated

IATA

Not Regulated

SECTION 15: Regulatory information

Toxic Substance Control Act (TSCA 8b.): This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:

- (i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.
- (ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Massachusetts Right To Know Components

Component	CAS-No.	Revision Date
N, N-Dimethylacetamide (residual in powder)	127-19-5	1993-04-24

Pennsylvania Right To Know Components

Component	CAS-No.	Revision Date
N, N-Dimethylacetamide (residual in powder)	127-19-5	1993-04-24

New Jersey Right To Know Components

Component	CAS-No.	Revision Date
N, N-Dimethylacetamide (residual in powder)	127-19-5	1993-04-24

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Component	CAS-No.	Revision Date
N, N-Dimethylacetamide (residual in powder)	127-19-5	2013-12-20

SECTION 16: Other information

The information contained herein is believed to be correct, but there is no guarantee such information is accurate or complete, and this Safety Data Sheet does not make any warranty, express or implied, regarding the product. Nexolve does not assume liability for any loss or damage, direct or indirect, arising out of the use of this information. The user is solely responsible for (1) the safe handling and use of this product, (2) legal compliance, and (3) all losses, damages, or liability from use of this product.