

SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

1. Identification

Product identifier: NANOCRYL® C 140

Chemical name:

Preparation, consisting of acrylates and amorphous silicon dioxide

Other means of identification

None.

Recommended restrictions

Recommended use: Industrial use

Restrictions on use: None known.

Manufacturer/Importer/Distributor Information

Company Name : Evonik Corporation
Nutrition & Care
PO Box 34628
Richmond, VA 23234
USA

Telephone : +1 804 727 0700

Fax : +1 804 727 0845

E-mail : product-regulatory-services@evonik.com

Emergency telephone number:

24-Hour Health : +1 800 424 9300 (CHEMTREC - US & CANADA)

Emergency : 800 681 9531 (CHEMTREC MEXICO)

+1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids Category 4

Health Hazards

Skin Corrosion/Irritation Category 2

Serious Eye Damage/Eye Irritation Category 2A

Skin sensitizer Category 1

Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement:
 Combustible liquid.
 Causes skin irritation.
 Causes serious eye irritation.
 May cause an allergic skin reaction.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing. Specific treatment (see supplemental first aid instructions on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction. Collect spillage.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Chemical name:
 Preparation, consisting of acrylates and amorphous silicon dioxide
Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) [*]
hexamethylene diacrylate; hexane-1,6-diol diacrylate		13048-33-4	25 - <50%

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

General information:	Remove soiled or soaked clothing immediately
Inhalation:	fresh air supply, consult a doctor if feeling unwell.
Skin Contact:	In case of contact with skin wash off with soap and water. If skin irritation persists, call a physician.
Eye contact:	In case of contact with eyes rinse thoroughly with plenty of water. If symptoms persist, seek medical advice.
Ingestion:	Thoroughly clean the mouth with water In case of discomfort: Supply with medical care.
Personal Protection for First-aid Responders:	No data available.

Most important symptoms and effects, both acute and delayed

Symptoms:	Serious eye irritation skin irritation possible
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	Treat symptomatically.
-------------------	------------------------

5. Fire-fighting measures

General Fire Hazards:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Suitable (and unsuitable) extinguishing media	
Suitable extinguishing media:	foam, carbon dioxide, dry powder, water spray.
Unsuitable extinguishing media:	High volume water jet.
Special hazards arising from the substance or mixture:	In the event of fire the following can be released: - Carbon monoxide, carbon dioxide, silicon dioxide Under certain conditions of combustion traces of other toxic substances cannot be excluded
Special protective equipment and precautions for firefighters	
Special fire fighting procedures:	No specific precautions.
Special protective equipment for fire-fighters:	Do not inhale explosion and/or combustion gases. Self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Use personal protective clothing.
Accidental release measures:	No data available.

Methods and material for containment and cleaning up:

Take up with absorbent material (eg sand, kieselguhr, universal binder) Dispose of absorbed material in accordance with the regulations.

Environmental Precautions:

Do not allow to enter drains or waterways Prevent product from getting into subsoil/soil.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):

No data available.

Safe handling advice:

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes.

Contact avoidance measures:

No data available.

Storage

Safe storage conditions:

Keep container tightly closed in a cool, well-ventilated place. Keep away from direct sunlight. Do not store together with amines. Do not store with acids or alkalies Do not store together with: Radical formers, reducing substances, heavy metal ions Do not keep at temperatures below 10 °C. Maximum storage temperature: 30 °C

Safe packaging materials:

No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment

Eye/face protection:

Safety glasses

Skin Protection

Hand Protection:

Material: Butyl rubber.
Break-through time: 480 min

Skin and Body Protection:

protective clothing

Respiratory Protection:

in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2

Hygiene measures: Remove soiled or soaked clothing immediately. When using do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Use skin protective preparation as preventive skin protection.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	yellowish
Odor:	Characteristic
Odor Threshold:	not measured
Freezing point:	not measured
Boiling Point:	> 212 °F/> 100 °C
Flammability:	not measured
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	not measured
Explosive limit - lower:	not measured
Flash Point:	> 149 °F/> 65 °C
Self-ignition:	not measured
Decomposition Temperature:	not measured
pH:	5 - 7 (100 g/l, 25 °C) in Water

Viscosity

Dynamic viscosity:	not measured
Kinematic viscosity:	not measured
Flow Time:	No data available.

Solubility(ies)

Solubility in Water:	Insoluble
Solubility (other):	not measured
Partition coefficient (n-octanol/water):	not measured
Vapor pressure:	< 1.3 hPa (68 °F/20 °C)
Relative density:	not measured
Density:	1.3 - 1.4 g/cm ³ (68 °F/20 °C)
Bulk density:	No data available.
Relative vapor density:	not measured

Particle characteristics

Particle Size:	No data available.
Particle Size Distribution:	No data available.
Specific surface area:	No data available.
Surface charge/Zeta potential:	No data available.
Shape:	No data available.
Crystallinity:	No data available.
Surface treatment:	No data available.

Other information

Explosive properties:	not measured
------------------------------	--------------

Oxidizing properties:	not oxidizing
Minimum ignition temperature:	not measured
Metal Corrosion:	Not corrosive to metals
Evaporation Rate:	not measured

10. Stability and reactivity

Reactivity:	see section "Possibility of hazardous reactions".
Chemical Stability:	The product is stable under normal conditions.
Possibility of hazardous reactions:	No hazardous reactions with proper storage and handling
Conditions to avoid:	direct sunlight
Incompatible Materials:	Radical formers (e.g. peroxides), reducing substances and/or heavy metal ions Amines. alkalines acids
Hazardous Decomposition Products:	In the presence of radical component (e.g. peroxides), reducing agents and/or heavy metal compounds polymerisation with evolution of heat is possible.

11. Toxicological information

Information on toxicological effects

Information on likely routes of exposure

Inhalation:	Information on effects are given below.
Skin Contact:	Information on effects are given below.
Eye contact:	Information on effects are given below.
Ingestion:	Information on effects are given below.

Acute toxicity (list all possible routes of exposure)

Oral	
Product:	Not classified for acute toxicity based on available data.
Dermal	
Product:	LD 50 (ATEmix): > 5,000 mg/kg
Inhalation	
Product:	Not classified for acute toxicity based on available data.

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Serious Eye Damage/Eye Irritation

Product: No data available.

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogens present or none present in regulated quantities

ACGIH: US.ACGIH Threshold Limit Values:

No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogens present or none present in regulated quantities

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

No data available.

In vitro

Product: No data available.

Components:

hexamethylene diacrylate; hexane-1,6-diol diacrylate
Ames test (OECD 471): negative
gene mutation test (OECD 476): negative

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: Not classified

Information on health hazards

Other hazards

Product: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Product name: NANOCRYL® C 140

Components:

hexamethylene diacrylate; hexane-1,6-diol diacrylate	EC 50 (Desmodesmus subspicatus (green algae), 72 h): 1.5 mg/l (DIN 38412, T.9)
	EC 50 (Selenastrum capricornutum (green algae), 72 h): 1.09 mg/l (OECD 201)
	EC 50 (Selenastrum capricornutum (green algae), 72 h): 2.33 mg/l (OECD 201)

Toxicity to microorganisms**Product:** No data available.**Chronic hazards to the aquatic environment:****Fish****Product:** No data available.**Aquatic Invertebrates****Product:** No data available.**Toxicity to Aquatic Plants****Product:** No data available.**Components:**

hexamethylene diacrylate; hexane-1,6-diol diacrylate	NOEC (Desmodesmus subspicatus (green algae), 72 h): Approximate 0.5 mg/l (DIN 38412, T.9)
	NOEC (Selenastrum capricornutum (green algae), 72 h): 0.9 mg/l (OECD 201)

Toxicity to microorganisms**Product:** No data available.**Persistence and Degradability****Biodegradation****Product:** No data available.**BOD/COD Ratio****Product:** No data available.**Bioaccumulative potential****Bioconcentration Factor (BCF)****Product:** No data available.**Partition Coefficient n-octanol / water (log Kow)****Product:** Log Kow: not measured**Mobility in soil:****Product** No data available.**Results of PBT and vPvB assessment:****Product** No data available.**Other adverse effects:****Other hazards****Product:** Do not allow to enter soil, waterways or waste water canal.

13. Disposal considerations

- Disposal methods:** In accordance with local authority regulations, take to special waste incineration plant
- Contaminated Packaging:** If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

14. Transport information

Domestic regulation

49 CFR

- UN/ID/NA number : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(Hexanediol diacrylate, 1,6-)
Class : 9
Packing group : III
Labels : 9
ERG Code : 171
Marine pollutant : no
Remarks : FOR USA ONLY: In packagings > 450 L this Product must be classified, placarded, marked and shipped as Combustible Liquid in the USA.

International Regulations

IATA-DGR

- UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(Hexanediol diacrylate, 1,6-)
Class : 9
Packing group : III
Labels : 9MI
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964

IMDG-Code

- UN number or ID number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Hexanediol diacrylate, 1,6-)
Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity

CYCLOHEXANE
 METHANOL
 HYDROQUINONE

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Flammable (gases, aerosols, liquids, or solids), Skin Corrosion or Irritation, Serious eye damage or eye irritation, Respiratory or Skin Sensitization, Hazards Not Otherwise Classified (HNOC)

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

Chemical Identity

HYDROQUINONE

US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

Chemical Identity

CYCLOHEXANE

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

Inventory Status:

US TSCA Inventory:	Included on Inventory.	
Canada DSL Inventory List:	Not in compliance with the inventory.	

16. Other information, including date of preparation or last revision

HMIS Hazard ID

Health	2
Flammability	2
Physical Hazards	0
PERSONAL PROTECTION	B

B - Safety Glasses & Gloves

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

Issue Date: 03/13/2019

Version #: 1.3

Further Information: none

Revision Information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Disclaimer:

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.