

SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY

Product name: PARALOID™ EXL-3330 Engineering Resin Additive Pellet

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THE DOW CHEMICAL COMPANY encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: PARALOID™ EXL-3330 Engineering Resin Additive Pellet

Recommended use of the chemical and restrictions on use Identified uses: Plastics Additive

COMPANY IDENTIFICATION THE DOW CHEMICAL COMPANY 2030 DOW CENTER MIDLAND MI 48674-0000 UNITED STATES

Customer Information Number:

800-258-2436 SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER 24-Hour Emergency Contact: CHEMTREC +1 800-424-9300 Local Emergency Contact: 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification

GHS classification in accordance with 29 CFR 1910.1200 Not a hazardous substance or mixture.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Acrylic copolymer This product is a mixture.

Component

CASRN

Concentration

Acrylic polymer(s)	Not hazardous	97.0 - 98.0 %
Calcium carbonate	471-34-1	2.0 - 3.0 %
Individual residual monomers	Not Required	< 0.1 %

4. FIRST AID MEASURES

Description of first aid measures

Inhalation: Move to fresh air.

Skin contact: Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

Eye contact: Rinse with plenty of water. If eye irritation persists, consult a specialist.

Ingestion: Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Carbon dioxide (CO2) Dry chemical Water spray

Unsuitable extinguishing media: No data available

Special hazards arising from the substance or mixture Hazardous combustion products: Combustion generates toxic fumes of the following: Carbon oxides

Unusual Fire and Explosion Hazards: Material as sold is combustible; burns vigorously with intense heat.

Advice for firefighters Fire Fighting Procedures: Cool containers/tanks with water spray.

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Material can create slippery conditions. Wear compatible, chemically resistant gloves. Ventilate the area.

Environmental precautions: WARNING: KEEP SPILLS OF PRODUCT AS SUPPLIED OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER. DO NOT DISCHARGE CLEANING RUNOFFS DIRECTLY TO OPEN BODIES OF WATER. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Static charges can accumulate: use bonding and grounding between transfer equipment and receiving containers and for anyother operations capable of generating static electricity. Avoid inhalation of vapour or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container closed.

Conditions for safe storage: Store at room temperature in the original container. Material can burn; limit indoor storage to approved areas equipped with automatic sprinklers. Avoid all ignition sources. Keep away from heat and sources of ignition. This material is not hazardous under normal storage conditions. However, all materials of this type release some monomer vapors or gases when stored for prolonged periods at elevated temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value/Notation
Calcium carbonate	Dow IHG	TWA	1 mg/m3

Exposure controls

Engineering controls: Use local exhaust ventilation with a minimum capture velocity of 100 ft/min. (0.5 m/sec.) at the point of vapor evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Protective measures: Facilities storing or utilizing this material should be equipped with an eyewash facility.

Individual protection measures

Eye/face protection: Safety glasses with side-shields Eye protection worn must be compatible with respiratory protection system employed. **Skin protection**

Hand protection: For prolonged or repeated contact use protective gloves.

Respiratory protection: A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Up to 10 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. Up to 50 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. Up to 50 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) full-facepiece, air-purifying respirator, OR full-facepiece, airline respirator in the pressure demand mode. Above 50 times the exposure limit or Unknown: Wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode, OR full-facepiece, airline respirators should be equipped with NIOSH approved (or equivalent) organic vapor cartridges and N95 filters. If oil mist is present, use R95 or P95 filters.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	pellets
Color	white
Odor	Pungent, sweet odor
Odor Threshold	No data available
рН	No data available
Melting point/range	132.00 - 149.00 °C (269.60 - 300.20 °F)
Freezing point	No data available
Boiling point (760 mmHg)	Not applicable
Flash point	No data available
Evaporation Rate (Butyl Acetate	Not applicable
= 1)	
Flammability (solid, gas)	No data available
Lower explosion limit	No data available
Upper explosion limit	Not applicable
Vapor Pressure	Not applicable
Relative Vapor Density (air = 1)	Not applicable
Relative Density (water = 1)	1.0600
Water solubility	Not applicable
Partition coefficient: n-	No data available
octanol/water	/
Auto-ignition temperature	400.00 °C (752.00 °F)
Decomposition temperature	No data available
Dynamic Viscosity	Not applicable
Kinematic Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Molecular weight	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: No data available

Possibility of hazardous reactions: None known. Product will not undergo polymerization. Stable

Conditions to avoid: No data available

Incompatible materials: Prolonged contact with acids, alkalies and strong oxidizing agents may attack or dissolve the polymer.

Hazardous decomposition products: Heating above the decomposition temperature will release acrylic monomers.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity LD50, Rat, > 5,000 mg/kg

Acute dermal toxicity

LD50, Rabbit, > 5,000 mg/kg

Acute inhalation toxicity

Dust generated at a maximum concentration of 3.4 mg/L for 4 hours was not fatal to any of 24 test animals (12 male and 12 female).

Skin corrosion/irritation slight irritation

Serious eye damage/eye irritation slight irritation

Sensitization Product test data not available. Refer to component data.

Specific Target Organ Systemic Toxicity (Single Exposure) Product test data not available. Refer to component data.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Product test data not available. Refer to component data.

Carcinogenicity

Product test data not available. Refer to component data.

Teratogenicity

Product test data not available. Refer to component data.

Reproductive toxicity

Product test data not available. Refer to component data.

Mutagenicity

Product test data not available. Refer to component data.

Aspiration Hazard

Product test data not available. Refer to component data.

Additional information

Information given is based on data obtained from similar substances.

COMPONENTS INFLUENCING TOXICOLOGY:

Acrylic polymer(s)

Acute inhalation toxicity The LC50 has not been determined.

Sensitization

For skin sensitization: No relevant data found.

For respiratory sensitization: No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific Target Organ Systemic Toxicity (Repeated Exposure) No relevant data found.

Carcinogenicity No relevant data found.

Teratogenicity No relevant data found.

Reproductive toxicity No relevant data found.

Mutagenicity No relevant data found.

Aspiration Hazard

No aspiration toxicity classification

Calcium carbonate

Acute inhalation toxicity

LC50, Rat, male and female, 4 Hour, dust/mist, > 3 mg/l The LC50 value is greater than the Maximum Attainable Concentration. No deaths occurred at this concentration.

Sensitization

Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization: No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Carcinogenicity

No relevant data found.

Teratogenicity

Did not cause birth defects or any other fetal effects in laboratory animals.

Reproductive toxicity

In animal studies, did not interfere with fertility. In animal studies, did not interfere with reproduction.

Mutagenicity

In vitro genetic toxicity studies were negative.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

General Information

No data available

Toxicity

Acrylic polymer(s) Acute toxicity to fish No relevant data found.

Calcium carbonate

Acute toxicity to fish Material is practically non-toxic to fish on an acute basis (LC50 > 100 mg/L).

Acute toxicity to aquatic invertebrates EC50, Daphnia magna (Water flea), 48 Hour, > 100 mg/l, OECD Test Guideline 202

Acute toxicity to algae/aquatic plants

NOEC, Desmodesmus subspicatus (green algae), 72 Hour, 14 mg/l, OECD Test Guideline 201

Toxicity to bacteria

EC50, 3 Hour, > 1,000 mg/l, OECD Test Guideline 209

Persistence and degradability

Acrylic polymer(s)

Biodegradability: No relevant data found.

Calcium carbonate

Biodegradability: Biodegradation is not applicable.

Bioaccumulative potential

Acrylic polymer(s)

Bioaccumulation: No relevant data found.

Calcium carbonate

Bioaccumulation: Partitioning from water to n-octanol is not applicable.

Mobility in soil

Acrylic polymer(s)

No relevant data found.

Calcium carbonate

No relevant data found.

13. DISPOSAL CONSIDERATIONS

Disposal methods: For disposal, incinerate or landfill at a permitted facility in accordance with local, state, and federal regulations.

Contaminated packaging: Empty containers retain product residues. Follow label warnings even after container is emptied. Improper disposal or reuse of this container may be dangerous and illegal. Refer to applicable federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code Not regulated for transport Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312 No SARA Hazards

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 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.

Pennsylvania

Any material listed as "Not Hazardous" in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-Know Act.

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

Hazard Rating System

HMIS

Health	Flammability	Physical Hazard
1	1	0

Revision

Identification Number: 10001195 / A001 / Issue Date: 07/27/2018 / Version: 2.1 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

Dow IHG	Dow Industrial Hygiene Guideline
TWA	Time weighted average

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials: by - Body weight: CERCLA - Comprehensive Environmental Response. Compensation. and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada): ECx - Concentration associated with x% response: EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China: IMDG - International Maritime Dangerous Goods: IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA -Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA -Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.