SAFETY DATA SHEET
DOW CHEMICAL CANADA ULC

Product name: ACUSOL™ 445ND Polymer

Issue Date: 02/27/2025
Print Date: 02/28/2025

DOW CHEMICAL CANADA ULC 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: ACUSOL™ 445ND Polymer

Other means of identification: No data available

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

COMPANY IDENTIFICATION
DOW CHEMICAL CANADA ULC
#2400, 215 - 2ND STREET S.W.
CALGARY AB T2P 1M4
CANADA

Customer Information Number: 800-258-2436
SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER
24-Hour Emergency Contact (transportation emergencies only): 1-800-424-9300
Local Emergency Contact (transportation emergencies only): 1-800-424-9300
24-Hour Emergency Contact: 1-989-636-4400

2. HAZARDS IDENTIFICATION

Hazard classification
This product is hazardous under the criteria of the Hazardous Products Regulation (HPR) as implemented under the Workplace Hazardous Materials Information System (WHMIS 2015).
Combustible dust - Category 1

Label elements

Signal word: **WARNING!**
Hazards
May form combustible dust concentrations in air.

Other hazards
No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Sodium salt of acrylic polymer
This product is a mixture.

Chemical name	Common name and synonym	CASRN	Concentration (w/w)
2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt	2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt	68479-09-4	>= 90.0 - <= 100.0 %
Residual monomers	Monomer	Not required	< 150.0 PPM
Water	Water	7732-18-5	>= 0.0 - <= 10.0 %

4. FIRST AID MEASURES

Description of first aid measures
General advice:
First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air and keep comfortable for breathing; consult a physician.

Skin contact: Wash off with plenty of water.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: Rinse mouth with water. No emergency medical treatment necessary.

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: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Use the following extinguishing media when fighting fires involving this material:. Water spray. Carbon dioxide (CO2). Dry chemical.

Unsuitable extinguishing media: No data available

Special hazards arising from the substance or mixture

Hazardous combustion products: No data available

Unusual Fire and Explosion Hazards: Dusts at sufficient concentrations can form explosive mixtures with air..

Advice for firefighters

Fire Fighting Procedures: Cool containers/tanks with water spray.. DO NOT use a solid stream of water. A solid stream of water directed at this material may create a potentially explosive airborne dust mixture..

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. Keep people away from and upwind of spill/leak. Material can create slippery conditions. Avoid breathing dust.

Environmental precautions: CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Methods and materials for containment and cleaning up: Remove all sources of ignition. Use water spray to keep dusting to a minimum. Transfer spilled material to suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Monomer vapors can be evolved when material is heated during processing operations. See SECTION 8, for types of ventilation required. Avoid high concentrations of dust in air and accumulation of dust on equipment. An airborne dust of this material can create a dust explosion. When handling and processing this material local exhaust ventilation may be required to control dust and reduce exposure to vapors. To prevent dust explosions employ bonding and grounding for operations capable of generating static electricity. Protect all equipment from explosions by following the guidelines in NFPA-68 and NFPA-69. For electrical equipment follow local codes and electrical classification NFPA-70 (the National Electrical Code), class II, division 2, group G.

Conditions for safe storage: Avoid all ignition sources.

Storage stability
Storage temperature: -18 - 49 °C

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.

Consult local authorities for recommended exposure limits.

Component	Regulation	Type of listing	Value
2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt	Dow IHG	TWA Respirable fraction	0.5 mg/m3

Exposure controls
Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Wear clean, body-covering clothing.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.
The following should be effective types of air-purifying respirators: Particulate filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Powdered solid
Color	White to tan Free-flowing
Odor	Mild odor
Odor Threshold	No data available
pH	7.0 - 9.0 50% Solution
Melting point/freezing point	

Melting point/ range	No data available
Freezing point	No data available
Boiling point, initial boiling point and boiling range	
Boiling point (760 mmHg)	Not Applicable
Flash point	Not applicable
Evaporation Rate (Butyl Acetate = 1)	Not Applicable
Flammability	
Flammability (solid, gas)	May form combustible dust concentrations in air.
Flammability (liquids)	No data available
Upper/lower flammability or explosive limits	
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor Pressure	Not Applicable
Relative vapour density	
Relative Vapor Density (air = 1)	Not Applicable
Density and / or relative density	
Relative Density (water = 1)	0.2500 - 0.5000 Bulk density
Solubility(ies)	
Water solubility	completely soluble
Partition coefficient: n-octanol/water (log value)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Dynamic Viscosity	Not Applicable
Kinematic Viscosity	No data available
Percent volatility	5.00 - 10.00 % Water
Particle characteristics	
Particle size	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 dangerous reaction known under conditions of normal use.

Chemical stability: Stable

Possibility of hazardous reactions: Product will not undergo polymerization.

Conditions to avoid: Avoid dust formation. Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials: There are no known materials which are incompatible with this product.

Hazardous decomposition products: Thermal decomposition may yield acrylic monomers..

11. TOXICOLOGICAL INFORMATION

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

Information on likely routes of exposure
Ingestion, Inhalation, Skin contact, Eye contact.

Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)

Acute Toxicity Endpoints:
Not classified based on available information.

Acute oral toxicity

Information for the Product:

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

Typical for this family of materials.
LD50, Rat, > 5,000 mg/kg

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
Typical for this family of materials. LD50, Rat, > 5,000 mg/kg

Residual monomers
Single dose oral LD50 has not been determined.

Acute dermal toxicity

Information for the Product:

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Typical for this family of materials.
LD50, Rabbit, > 5,000 mg/kg

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
Typical for this family of materials. LD50, Rabbit, > 5,000 mg/kg

Residual monomers
The dermal LD50 has not been determined.

Acute inhalation toxicity

Information for the Product:

Brief exposure (minutes) is not likely to cause adverse effects.

The LC50 has not been determined.

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
The LC50 has not been determined.

Residual monomers
The LC50 has not been determined.

Skin corrosion/irritation

Not classified based on available information.

Information for the Product:

For similar material(s):
Brief contact is essentially nonirritating to skin.

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
For similar material(s):
Brief contact is essentially nonirritating to skin.

Residual monomers
Essentially nonirritating to skin.

Serious eye damage/eye irritation

Not classified based on available information.

Information for the Product:

For similar material(s):
May cause slight eye irritation.
Corneal injury is unlikely.

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
For similar material(s):
May cause slight eye irritation.
Corneal injury is unlikely.

Residual monomers
Essentially nonirritating to eyes.

Sensitization

For skin sensitization:

Not classified based on available information.

For respiratory sensitization:
Not classified based on available information.

Information for the Product:

For this family of materials:
Did not cause allergic skin reactions when tested in humans.
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
For this family of materials:
Did not cause allergic skin reactions when tested in humans.
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Residual monomers
For skin sensitization:
No relevant data found.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Residual monomers
Available data are inadequate to determine single exposure specific target organ toxicity.

Aspiration Hazard

Not classified based on available information.

Information for the Product:

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

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
Based on physical properties, not likely to be an aspiration hazard.

Residual monomers
Based on available information, aspiration hazard could not be determined.

Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Not classified based on available information.

Information for the Product:

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

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Residual monomers
No relevant data found.

Carcinogenicity

Not classified based on available information.

Information for the Product:

No relevant data found.

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
No relevant data found.

Residual monomers
No relevant data found.

Teratogenicity

Not classified based on available information.

Information for the Product:

For this family of materials: Did not cause birth defects or any other fetal effects in laboratory animals.

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
For this family of materials: Did not cause birth defects or any other fetal effects in laboratory animals.

Residual monomers
No relevant data found.

Reproductive toxicity

Not classified based on available information.

Information for the Product:

No relevant data found.

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
No relevant data found.

Residual monomers
No relevant data found.

Mutagenicity

Not classified based on available information.

Information for the Product:

For this family of materials: In vitro genetic toxicity studies were negative.

Information for components:

2-Propenoic acid, telomer with sodium hydrogen sulfite, sodium salt
For this family of materials: In vitro genetic toxicity studies were negative.

Residual monomers
No relevant data found.

12. ECOLOGICAL INFORMATION

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

Toxicity

Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

For this family of materials:
LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, 700 mg/l

Acute toxicity to aquatic invertebrates
For this family of materials:
EC50, Daphnia magna (Water flea), 48 Hour, > 100 mg/l

Acute toxicity to algae/aquatic plants
For this family of materials:
EC50, Marine algae (Skeletonema costatum), 72 Hour, Growth rate, 480 mg/l

Long-term (chronic) aquatic hazard
Chronic toxicity to aquatic invertebrates
For similar material(s):
NOEC, Daphnia magna (Water flea), flow-through test, 21 d, number of offspring, 12 mg/l

For similar material(s):
MATC (Maximum Acceptable Toxicant Level), Daphnia magna (Water flea), flow-through test, 21 d, number of offspring, 17 mg/l

Toxicity to soil-dwelling organisms
Based on information for a similar material:

LC50, Eisenia fetida (earthworms), 14 day, > 1,000 mg/kg

Persistence and degradability
Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

Bioaccumulative potential
Bioaccumulation: No relevant data found.

Mobility in soil
No relevant data found.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Place powder in air-tight bags. For disposal, incinerate or landfill at a permitted facility in accordance with local, state, and federal regulations.

Contaminated packaging: Empty containers may retain product residues and should be disposed of by an approved waste management facility. Label warnings should be followed even after container is emptied. Improper disposal or reuse of this container may be dangerous and illegal. Consult with the respective regulating authorities to determine the available treatment and disposal facilities. All disposal practices must be in compliance with Federal, State/Provincial and local regulations.

14. TRANSPORT INFORMATION

TDG

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport

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

Canadian Domestic Substances List (DSL)
All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

16. OTHER INFORMATION

Hazard Rating System
HMIS

Health	Flammability	Physical Hazard
1	1	0

Revision
Identification Number: 10078240 / A208 / Issue Date: 02/27/2025 / Version: 6.0

In case this version of the SDS contains significant changes from the previous version, they are listed below or noted by bold, double bars in the left-hand margin throughout this document.
Changes encompass identification, hazards, tox/eco-tox information and the addition/removal of the ingredients, and regulatory information, hazard information, uses, risk management measures and other key regulatory changes of the product. Detailed explanation of the changes can be obtained upon request.

Legend

Dow IHG	Dow Industrial Hygiene Guideline

TWA	Time weighted average

Full text of other abbreviations
AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - 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; TECI - Thailand Existing Chemicals 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.

DOW CHEMICAL CANADA ULC 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 informationherein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express orimplied, 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.
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