



SAFETY DATA SHEET

DOW CANADA MATERIAL SCIENCES ULC

Product name: ACUSOL™ 445N Polymer

Issue Date: 07/14/2025

Print Date: 07/15/2025

DOW CANADA MATERIAL SCIENCES 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™ 445N Polymer

Other means of identification: No data available

Recommended use of the chemical and restrictions on use

Identified uses: Dispersant Polymer

COMPANY IDENTIFICATION

DOW CANADA MATERIAL SCIENCES ULC
#2400, 215 - 2nd Street S.W.
CALGARY AB T2P 1M4
CANADA

Customer Information Number:

1-800-258-2436

SDSQuestion@dow.com

Fax:

416-287-4495

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 not hazardous under the criteria of the Hazardous Products Regulation (HPR) as implemented under the Workplace Hazardous Materials Information System (WHMIS 2015).

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Water Soluble Polycarboxylate

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	>= 44.0 - <= 46.0 %
Residual monomers	Monomer	Not required	<= 150.0 PPM
Water	Water	7732-18-5	>= 54.0 - <= 56.0 %

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 extinguishing media appropriate for surrounding fire..

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: Material can splatter above 100C/212F.. Dried product can burn..

Advice for firefighters

Fire Fighting Procedures: No data available

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.

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: Contain spills immediately with inert materials (e.g., sand, earth). Transfer liquids and solid diking material to separate 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.

Conditions for safe storage: STIR WELL BEFORE USE. If freezing occurs, product performance should not be diminished. Completely thaw and thoroughly mix before using.

Storage stability

Storage temperature: 1 - 49 °C

Other data: Monomer vapors can be evolved when material is heated during processing operations. See SECTION 8, for types of ventilation required.

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/m ³

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	liquid
Color	Clear to hazy colourless

Odor	Odorless
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Odor Threshold	No data available
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pH	7.0 - 9.0
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Melting point/freezing point

Melting point/ range	0 °C Water
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Freezing point	No data available
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Boiling point, initial boiling point and boiling range

Boiling point (760 mmHg)	100.00 °C Water
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Flash point	Noncombustible
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Evaporation Rate (Butyl Acetate = 1)	<1.00 Water
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Flammability

Flammability (solid, gas)	Not Applicable
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Flammability (liquids)	No data available
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Upper/lower flammability or explosive limits

Lower explosion limit	Not Applicable
Upper explosion limit	Not Applicable
Vapor Pressure	No data available
Relative vapour density	
Relative Vapor Density (air = 1)	No data available
Density and / or relative density	
Relative Density (water = 1)	No data available
Solubility(ies)	
Water solubility	completely soluble
Partition coefficient: n-octanol/water (log value)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	>230.00 °C
Kinematic Viscosity	No data available
Percent volatility	54.00 - 56.00 % 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 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: 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: 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	0	0

Revision

Identification Number: 99124539 / 1126 / Issue Date: 07/14/2025 / Version: 7.0

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 Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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 - Organisation 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 CANADA MATERIAL SCIENCES 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 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.

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