# SAFETY DATA SHEET
**DOW CHEMICAL CANADA ULC**

**Product name: FASTRACK™ HD-21A Emulsion**

**Issue Date:** 07/12/2024
**Print Date:** 07/13/2024

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:** FASTRACK™ HD-21A Emulsion

**Other means of identification:** No data available

**Recommended use of the chemical and restrictions on use**
**Identified uses:** This product is used in coatings, textiles, binders and adhesives.

**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 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:** Polymers, water based
This product is a mixture.

| Chemical name | Common name and synonym | CASRN | Concentration (w/w) |
|---|---|---|---|
| Acrylic polymer(s) | Not hazardous | Not hazardous | >= 48.0 - 50.0 % |
| Residual monomers | Monomer | Not required | < 500.0 PPM |
| Aqua ammonia | Ammonium hydroxide | 1336-21-6 | < 1.0 % |
| Water | Water | 7732-18-5 | >= 50.0 - 52.0 % |

## 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. Suitable emergency safety shower facility should be available in work area.

**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:** None known..

**Special hazards arising from the substance or mixture**

**Hazardous combustion products:** Carbon dioxide.. Carbon monoxide..

**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:** Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container tightly closed. Do not breathe vapors, mist or gas.

**Conditions for safe storage:** Keep from freezing - product stability may be affected. STIR WELL BEFORE USE.

**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 |
|---|---|---|---|
| Aqua ammonia | ACGIH | TWA | 25 ppm, Ammonia |
| | ACGIH | STEL | 35 ppm, Ammonia |
| | Dow IHG | TWA | 10 ppm, As Ammonia |

| | | | |
|---|---|---|---|
| | CA AB OEL | TWA | 17 mg/m3 25 ppm |
| | CA AB OEL | STEL | 24 mg/m3 35 ppm |
| | CA BC OEL | TWA | 25 ppm |
| | CA BC OEL | STEL | 35 ppm |
| | CA QC OEL | TWAEV | 17 mg/m3 25 ppm |
| | CA QC OEL | STEV | 24 mg/m3 35 ppm |

**Exposure controls**
**Engineering controls:** Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. 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. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Avoid gloves made of: Polyvinyl alcohol ("PVA"). 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:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**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 emergency conditions, use an approved positive-pressure self-contained breathing apparatus.
The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

| | |
|---|---|
| **Physical state** | liquid |
| **Color** | white milky |
| **Odor** | Ammonia odor |
| **Odor Threshold** | No data available |
| **pH** | 10.0 - 10.6 |
| **Melting point/freezing point** | |
| **Melting point/ range** | 0.00 °C Water |
| **Freezing point** | No data available |

**Boiling point, initial boiling point and boiling range**

| | |
|---|---|
| **Boiling point (760 mmHg)** | 100.00 °C Water |
| **Flash point** | Noncombustible |
| **Evaporation Rate (Butyl Acetate = 1)** | <1.00 Water |
| **Flammability** | |
| **Flammability (solid, gas)** | Not Applicable |
| **Flammability (liquids)** | No data available |
| **Upper/lower flammability or explosive limits** | |
| **Lower explosion limit** | Not Applicable |
| **Upper explosion limit** | Not Applicable |
| **Vapor Pressure** | 17.0000000 mmHg at 20.00 °C Water |
| **Relative vapour density** | |
| **Relative Vapor Density (air = 1)** | <1.0000 Water |
| **Density and / or relative density** | |
| **Relative Density (water = 1)** | 1.0600 |
| **Solubility(ies)** | |
| **Water solubility** | partly miscible |
| **Partition coefficient: n-octanol/water (log value)** | No data available |
| **Auto-ignition temperature** | Not Applicable |
| **Decomposition temperature** | No data available |
| **Dynamic Viscosity** | 10 - 150 mPa.s |
| **Kinematic Viscosity** | No data available |
| **Percent volatility** | 50.00 - 52.00 % 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:** None reasonably foreseeable.

**Chemical stability:** Stable

**Possibility of hazardous reactions:** Product will not undergo polymerization.

**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.

Based on testing for product(s) in this family of materials:
LD50, Rat, > 5,000 mg/kg

**Information for components:**

**Acrylic polymer(s)**
Single dose oral LD50 has not been determined.

**Residual monomers**
Single dose oral LD50 has not been determined.

**Aqua ammonia**
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.

Based on testing for product(s) in this family of materials:
LD50, Rabbit, > 2,000 mg/kg No deaths occurred at this concentration.

**Information for components:**

**Acrylic polymer(s)**
The dermal LD50 has not been determined.

**Residual monomers**
The dermal LD50 has not been determined.

**Aqua ammonia**
The dermal LD50 has not been determined.

**Acute inhalation toxicity**

**Information for the Product:**

Vapor may cause severe irritation of the upper respiratory tract (nose and throat).

As product: The LC50 has not been determined.

**Information for components:**

**Acrylic polymer(s)**
The LC50 has not been determined.

**Residual monomers**
The LC50 has not been determined.

**Aqua ammonia**
The LC50 has not been determined.

**Skin corrosion/irritation**

Not classified based on available information.

**Information for the Product:**

Based on testing for product(s) in this family of materials:
Brief contact may cause slight skin irritation with local redness.

**Information for components:**

**Acrylic polymer(s)**
Essentially nonirritating to skin.

**Residual monomers**
Essentially nonirritating to skin.

**Aqua ammonia**
Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.
Classified as corrosive to the skin according to DOT guidelines.

**Serious eye damage/eye irritation**

Not classified based on available information.

**Information for the Product:**

Based on testing for product(s) in this family of materials:
May cause slight eye irritation.
Corneal injury is unlikely.

**Information for components:**

**Acrylic polymer(s)**
Essentially nonirritating to eyes.

**Residual monomers**
Essentially nonirritating to eyes.

**Aqua ammonia**
May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

**Sensitization**

**For skin sensitization:**
Not classified based on available information.

**For respiratory sensitization:**
Not classified based on available information.

**Information for the Product:**

Based on testing for product(s) in this family of materials:
Did not cause allergic skin reactions when tested in humans.

For respiratory sensitization:
No relevant data found.

**Information for components:**

**Acrylic polymer(s)**
For skin sensitization:
No relevant data found.

For respiratory sensitization:
No relevant data found.

**Residual monomers**
For skin sensitization:
No relevant data found.

For respiratory sensitization:
No relevant data found.

**Aqua ammonia**
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:**

**Acrylic polymer(s)**
Available data are inadequate to determine single exposure specific target organ toxicity.

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

**Aqua ammonia**
May cause respiratory irritation.
Route of Exposure: Inhalation
Target Organs: Respiratory Tract

**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:**

**Acrylic polymer(s)**
Based on physical properties, not likely to be an aspiration hazard.

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

**Aqua ammonia**
Aspiration into the respiratory system may occur during ingestion or vomiting. Due to corrosivity, tissue damage or lung injury may occur.

**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:**

Product test data not available.

**Information for components:**

**Acrylic polymer(s)**
No relevant data found.

**Residual monomers**
No relevant data found.

**Aqua ammonia**
No relevant data found.

**Carcinogenicity**

Not classified based on available information.

**Information for the Product:**

Product test data not available.

**Information for components:**

**Acrylic polymer(s)**
No relevant data found.

**Residual monomers**
No relevant data found.

**Aqua ammonia**
Did not cause cancer in laboratory animals.

**Teratogenicity**

Not classified based on available information.

**Information for the Product:**

Product test data not available.

**Information for components:**

**Acrylic polymer(s)**
No relevant data found.

**Residual monomers**
No relevant data found.

**Aqua ammonia**
No relevant data found.

**Reproductive toxicity**

Not classified based on available information.

**Information for the Product:**

Product test data not available.

**Information for components:**

**Acrylic polymer(s)**

No relevant data found.

**Residual monomers**
No relevant data found.

**Aqua ammonia**
No relevant data found.

**Mutagenicity**

Not classified based on available information.

**Information for the Product:**

Product test data not available.

**Information for components:**

**Acrylic polymer(s)**
No relevant data found.

**Residual monomers**
No relevant data found.

**Aqua ammonia**
In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

## 12. ECOLOGICAL INFORMATION

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

**Toxicity**

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

**Residual monomers**
**Acute toxicity to fish**
No relevant data found.

**Aqua ammonia**
**Acute toxicity to fish**
Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).
May increase pH of aquatic systems to > pH 10 which may be toxic to aquatic organisms.
LC50, Lepomis macrochirus (Bluegill sunfish), 96 Hour, 0.87 mg/l
LC50, Pimephales promelas (fathead minnow), 96 Hour, 1.2 mg/l

**Acute toxicity to aquatic invertebrates**
EC50, Daphnia magna (Water flea), 48 Hour, 0.66 mg/l

**Persistence and degradability**

**Acrylic polymer(s)**

**Biodegradability:** No relevant data found.

**Residual monomers**

**Biodegradability:** No relevant data found.

**Aqua ammonia**

**Biodegradability:** Biodegradation may occur under aerobic conditions (in the presence of oxygen). Biodegradation rate may increase in soil and/or water with acclimation.

**Theoretical Oxygen Demand:** 0.76 mg/mg

**Bioaccumulative potential**

**Acrylic polymer(s)**

**Bioaccumulation:** No relevant data found.

**Residual monomers**

**Bioaccumulation:** No relevant data found.

**Aqua ammonia**

**Bioaccumulation:** No bioconcentration is expected because of the relatively high water solubility.

**Mobility in soil**

**Acrylic polymer(s)**

No relevant data found.

**Residual monomers**

No relevant data found.

**Aqua ammonia**

Potential for mobility in soil is very high (Koc between 0 and 50).

## 13. DISPOSAL CONSIDERATIONS

**Disposal methods:** Coagulate the emulsion by the stepwise addition of ferric chloride and lime. Remove the clear supernatant and flush to a chemical sewer. 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: 10296690 / A208 / Issue Date: 07/12/2024 / Version: 7.0

In case this version of the SDS contains significant changes from the previous version, they are listed below. If no significant changes are displayed, then no significant changes occurred.

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**

| | |
|---|---|
| ACGIH | USA. ACGIH Threshold Limit Values (TLV) |
| CA AB OEL | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL) |
| CA BC OEL | Canada. British Columbia OEL |
| CA QC OEL | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
| Dow IHG | Dow Industrial Hygiene Guideline |
| STEL | short-term exposure limit |
| STEV | Short-term exposure value |
| TWA | Time weighted average |
| TWAEV | Time-weighted average exposure value |

**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 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.
CA