



MUL = 50 mg/L

# SAFETY DATA SHEET

Revision date 2020-Dec-18

Revision number 2

## 1. IDENTIFICATION

### Product identifier

**Product name** UltraFloc® 322HV

### Other means of identification

**Product code** 322HV  
**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use [RU]** No information available  
**Uses advised against** None known

### Details of the supplier of the safety data sheet

**Supplier** G2O Technologies LLC  
700 Hwy 33 South  
Centreville, MS 39631  
(601) 645-6536  
Hours: Monday-Friday 9:00-5:00 CST (Central Standard Time)

**Contact Point** sdsinfo@g2otech.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC: (800) 424-9300  
Outside USA - +1 (703) 527-3887 collect calls accepted

## 2. HAZARDS IDENTIFICATION

### Classification

#### **Canadian HPR Regulatory Status**

This chemical is not considered hazardous by the Hazardous Products Regulation (WHMIS 2015)

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

### EMERGENCY OVERVIEW

The product contains no substances which at their given concentration, are considered to be hazardous to health.

<b>Physical state</b> liquid	<b>Color</b> yellow	<b>Appearance</b> viscous	<b>Odor</b> slight amine
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**GHS Label elements, including precautionary statements**

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

**Other information**

- Not applicable

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous ingredients**

None

**Non-hazardous ingredients**

Component	Common name	CAS-No	weight-%
Polydimethyldiallylammonia chloride	Poly(DADMAC)	26062-79-3	15 - 25%

**4. FIRST AID MEASURES****First Aid Measures****Eye contact**

Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. If eye irritation persists: Get medical advice/attention.

**Skin contact**

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

**Ingestion**

Do NOT induce vomiting. If vomiting should occur spontaneously, keep airway clear. Never give anything by mouth to an unconscious person. Get medical attention.

**Inhalation**

Remove person from affected area to fresh air and watch for delayed reaction. Give oxygen/artificial respiration if needed. Seek medical attention for any breathing problem.

**Most important symptoms and effects, both acute and delayed****Acute effects**

May result in mild irritation of a short-term nature for the skin and eyes.

**Chronic effects**

Prolonged or repeated skin exposure may cause dermatitis.

**Indication of any immediate medical attention and special treatment needed****Note to physicians**

Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Extinguishing media**

**Suitable extinguishing media**

This material is not expected to burn unless heated to dryness. Use extinguishing agent suitable for type of surrounding fire: Water, Foam, Carbon dioxide (CO<sub>2</sub>), Dry chemical.

**Extinguishing media which must not be used for safety reasons**

No information available.

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

Thermal decomposition (as may be experienced in a fire) may produce hydrogen chloride gas and/or may liberate oxides of nitrogen and carbon. Spills produce slippery surfaces and could present a physical hazard for firemen.

**Advice for firefighters****Firefighting measures**

Cool exposed containers with water spray after extinguishing fire.

**Special protective equipment for firefighters**

Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel.

**Explosion data****Sensitivity to Mechanical Impact**

None.

**Sensitivity to Static Discharge**

None.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures****Personal precautions**

Wear suitable protective clothing and gloves.

**Environmental precautions****Environmental precautions**

Avoid runoff to waterways and sewers.

**Methods and material for containment and cleaning up****Methods for containment**

Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills.

**Methods for cleaning up**

Clean up spill immediately using inert absorbent materials such as clays, sand, earth, or other commercially available dry sweeping compound. Spills of solution are extremely slippery so all residue must be removed promptly. If slippery conditions persist, apply additional dry sweeping compound. Following containment, large spills should be pumped into salvage tanks.

## 7. HANDLING AND STORAGE

**Precautions for safe handling****Advice on safe handling**

Keep container closed when not in use

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, gloves, and protective clothing when handling.

Wash thoroughly after handling. Take off contaminated clothing and wash before reuse

Use with adequate ventilation and employ respiratory protection where mist or spray may be generated.  
Ensure that eyewash stations and safety showers are close to the workstation location

#### **Conditions for safe storage, including any incompatibilities**

##### **Technical measures and storage conditions**

Keep container closed when not in use

Store in a cool, well ventilated area. Store between 5 - 30 °C (41 - 86 °F)

Avoid storage temperatures below freezing, since product may stratify.

Changes in temperature create air pressure changes inside drums. Use proper precaution in unscrewing plug and/or opening container.

##### **Incompatible products**

Strong oxidizers. Contact with copper, copper alloys, aluminum, mild steel or iron may cause corrosion/degradation.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **Control parameters**

##### **Exposure Guidelines**

#### **Appropriate engineering controls**

##### **Engineering controls**

Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

#### **Individual protection measures, such as personal protective equipment**

##### **Eye/face Protection**

Wear chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).

##### **Hand Protection**

Gloves impervious to liquid material.

##### **Skin and body protection**

While there is a possibility of skin contact, rubber gloves and boots impervious to liquid material should be worn.

##### **Respiratory protection**

Under most conditions, use adequate general ventilation and protective equipment since volatility and toxicity are very low. If significant vapors, mists or aerosols are present, use NIOSH approved respirator (ANSI Z882.1980) or equivalent, that is equipped with a dust/mist cartridge.

##### **Other personal protection data**

Eyewash fountains and safety showers must be easily accessible.

##### **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

#### **Information on basic physical and chemical properties**

<b>Physical state</b>	liquid
<b>Color</b>	yellow
<b>Appearance</b>	viscous
<b>Odor</b>	slight amine

**Odor threshold**

No information available

<u>Property</u>	<u>Values</u>	<u>Remarks / Method</u>
<b>pH</b>	4.0 - 8.0	as is
<b>Melting / freezing point</b>	< 0 °C / < 32 °F	No information available
<b>Boiling point / boiling range</b>	> 100 °C / > 212 °F @ 760 mm Hg	No information available
<b>Flash point</b>	> 100 °C / > 212 °F	No information available
<b>Evaporation rate</b>	Equal to water	No information available
<b>Flammability (solid, gas)</b>	Not applicable	No information available
<b>Flammability Limit in Air</b>		
Upper flammability limit	Not applicable	No information available
Lower flammability limit	Not applicable	No information available
<b>Vapor pressure</b>	No information available	No information available
<b>Vapor density</b>	> 60 mm Hg	No information available
<b>Specific gravity</b>	1.02 - 1.06	No information available
<b>Solubility (water)</b>	completely; 100%	No information available
<b>Solubility in other solvents</b>	No information available	No information available
<b>Partition coefficient: n-octanol/water</b>	No information available	No information available
<b>Autoignition temperature</b>	Not applicable	No information available
<b>Decomposition temperature</b>	No information available	No information available
<b>Kinematic viscosity</b>	No information available	No information available
<b>Dynamic viscosity</b>	1,000 - 3,000 cps	No information available

**Other information**

<b>Density</b>	8.50 - 8.84 lb/gal
<b>Bulk Density</b>	No information available
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>Volatile Organic Compound (VOC) content, wt. %</b>	No information available
<b>Percent Volatile, wt. %</b>	75 %

## 10. STABILITY AND REACTIVITY

**Reactivity****Reactivity**

No data available.

**Chemical stability**

**Chemical stability**

Stable.

**Possibility of hazardous reactions****Possibility of hazardous reactions**

None under normal processing.

**Hazardous polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid****Conditions to avoid**

None known.

**Incompatible materials****Materials to avoid**

Strong oxidizers. Contact with copper, copper alloys, aluminum, mild steel or iron may cause corrosion/degradation.

**Hazardous decomposition products****Hazardous decomposition products**

Thermal decomposition (as may be experienced in a fire) may produce hydrogen chloride gas and/or oxides of nitrogen and carbon.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Eye contact**

None expected, but prolonged or repeated eye contact may result in mild irritation and redness of a short-term nature.

**Skin contact**

None expected, but prolonged or repeated skin contact may result in irritation of a short-term nature.

**Ingestion**

Effects of ingesting small amounts are negligible; ingesting large amounts may injure person slightly.

**Inhalation**

This product is not toxic by inhalation.

**Acute toxicity - Product Information**

<b>Oral LD50</b>	> 2,000 mg/kg
<b>Dermal LD50</b>	No information available
<b>Inhalation LC50</b>	No information available

**Acute toxicity - Component Information**

Component	weight-%	Oral LD50	Dermal LD50	Inhalation LC50
Polydimethyldiallylammonia chloride 26062-79-3	15 - 25%	= 3000 mg/kg ( Rat )	--	--

**Information on toxicological effects****Symptoms**

No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

Mild skin irritation

**Serious eye damage/eye irritation**

Testing conducted on rabbits showed minor transient irritation that cleared within days.

**Sensitization**

Product is not expected to be sensitizing.

**Germ cell mutagenicity**

Negative in the Ames test. Negative in the mouse micronucleus test.

**Carcinogenicity**

This product does not contain any components in concentrations greater than or equal to 0.1% that are listed as known or suspected carcinogens by NTP, IARC, ACGIH, or OSHA.

**Reproductive toxicity**

No information available

**Specific target organ toxicity - Single exposure**

No information available.

**Specific target organ toxicity - Repeated exposure**

No information available

**Aspiration hazard**

No information available.

**Other information**

Conclusions are drawn from sources other than direct testing.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

- The effects of this product on aquatic organisms are rapidly and significantly reduced with the presence of 5 to 10 mg/L organic carbon as found in most surface waters.

**Acute aquatic toxicity - Product Information**

<b>Fish</b>	LC50 (96 hour): > 10 mg/L - Zebra Fish ( <i>Danio rerio</i> )
<b>Crustacea</b>	EC50 (48 hour): > 10 mg/L - Water flea ( <i>Daphnia magna</i> )
<b>Algae/aquatic plants</b>	No information available

**Persistence and degradability****Persistence and degradability**

No information available

**Bioaccumulative potential****Bioaccumulative potential**

This product does not bio-accumulate.

**Mobility**

**Mobility**

No information available

**Results of PBT and vPvB assessment****PBT and vPvB assessment**

No information available

**Other adverse effects****Other information**

No other ecological studies have been carried out on this product.

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Disposal of wastes**

Recycle, if possible. If not, dispose of the waste material in accordance with all applicable local, regional, national, and international regulations regarding health and pollution.

**Contaminated packaging**

Since empty containers retain product residue, follow label warnings even after container is emptied.

**14. TRANSPORT INFORMATION****TDG** Not regulated**DOT** Not regulated**ICAO/IATA** Not regulated**IMDG** Not regulated**15. REGULATORY INFORMATION****National Regulations****Canada (DSL)**

All ingredients are on the inventory or exempt from listing

**Canada (NDSL)**

None of the ingredients are on the inventory.

**International Inventories****Australia (AICS)**

All ingredients are on the inventory or exempt from listing

**China (IECSC)**

All ingredients are on the inventory or exempt from listing

**European Union (EINECS)**

All ingredients are on the inventory or exempt from listing

**European Union (ELINCS)**

None of the ingredients are on the inventory.



**Japan (ENCS)**

All ingredients are on the inventory or exempt from listing

**South Korea (KECL)**

All ingredients are on the inventory or exempt from listing

**Philippines (PICCS)**

All ingredients are on the inventory or exempt from listing

**United States (TSCA)**

All ingredients are on the inventory or exempt from listing

**Legend**

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**AICS** - Australian Inventory of Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**16. OTHER INFORMATION**

Product code	322HV
Revision date	2020-Dec-18
Revision number	2

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet