



SAFETY DATA SHEET

FLO-CLENE

1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND OF THE COMPANY

Identification of Preparation: FLO CLENE

Date of Safety Data Sheet: September 20, 2018

Use of Preparation: Scale remover.

Restrictions on Use: For industrial use only

Company Identification: STARK INDUSTRIAL
527 Dundonald Street
Fredericton, NB L4K 1Y8

Company Emergency Telephone Number Emergency Phone: 1-888-709-7773

Transportation Emergency Telephone Number 1-888-709-7773

2. HAZARD IDENTIFICATION

Emergency Overview:

OSHA / WHMIS 2015 Hazards

Classification of substance or mixture

GHS-US/Canadian classification:

GHS Hazards

Corrosive to Metals Category 1 H290

Skin Corrosive Category 1B H314

Eye Damage Category 1 H318

Label Elements

GHS-US/ Canada Labeling

Hazard Pictograms (GHS):



Signal Word (GHS): Danger

Hazard Statements (GHS):

H290: May be corrosive to metals.

H314: Causes severe skin burns and eye damage

H318: Causes serious eye damage.



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Precautionary Statements (GHS):

P234: Keep only in original container.

P260: Do not breathe vapors, spray, mist.

P264: Wash hands, forearms, and exposed areas thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear eye protection, protective gloves, protective clothing.

Response Statements (GHS):

P301+P310+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340: IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor/physician.

P321: Specific treatment (see Section 4).

P363: Wash contaminated clothing before reuse.

P390: Absorb spillage to prevent material damage.

P405: Store locked up.

P406: Store in corrosive resistant container with a resistant inner liner.

P501: Dispose of contents/container according to local, regional, national, and international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Description: Chemical Blend

Ingredient	CAS#	% by Wt	Classification
ortho-Phosphoric Acid	7664-38-2	15-30	Skin Corrosion/Irritation Category 1B – H314 Serious Eye Damage/Irritation Category 1 – H318
Hydrochloric Acid	7647-01-0	1-5	Acute Toxicity Category 4 (Oral) - H302 Skin Corrosion/Irritation Category 1B – H314 Serious Eye Damage/Irritation Category 1 – H318 STOT Single Exposure Category 3 – H335
Ethylene glycol monobutyl ether	111-76-2	5-10	Flammable Liquids Category 4 – H227 Skin Corrosion/Irritation Category 2 - H315
Alcohol Ethoxylate	68131-39-5	1-5	Serious Eye Damage / Eye Irritation Category 2A - H319

4. FIRST AID MEASURES

Inhalation:

Remove to fresh air and keep at rest in a position comfortable for breathing.
Immediately call a POISON CENTRE or doctor/physician.

Eye Contact:

Remove contacts. Flush with water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Repeat if required. Immediately call a POISON CENTRE or doctor/physician.



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Skin Contact:	Thoroughly wash exposed skin with water. Remove any contaminated clothing and wash before reuse. Cover wounds with sterile bandage. Consult doctor/medical service. If burned surface >10%, take victim to hospital.
Ingestion:	Wash out mouth with water. Drink plenty of water. Do not induce vomiting unless directed by medical personal. Never give anything to an unconscious person. Immediately call a POISON CENTRE or doctor/physician.
Notes to Physician:	Treatment based on judgment of attending physician. Gastric lavage is not recommended.
Most important symptoms and effects, both acute and delayed:	Coughing. Dry/sore throat. Irritation of the respiratory tract and nasal mucous. Caustic burns/corrosion to the skin. Dry/red skin. Corrosion of the eye tissue. Nausea. Abdominal pain. Blood in vomit. Burns to gastric/intestinal mucous.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Water spray for extinguishing agent. CO ₂ , dry chemical, alcohol resistant foam, sand.
Unsuitable extinguishing media:	None known. Do not use a heavy stream of water
Special exposure hazards	Thermal decomposition releases corrosive vapours. Decomposes on exposure to temperature rise.
Special safety equipment:	Self-contained positive pressure breathing apparatus and protective clothing.
Fire and explosion	Not flammable. Not an explosive hazard.
Further information	Keep containers and surrounding cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapour or mist.

For Non-Emergency Personnel:

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel:

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters

Methods and Material for Containment and Cleaning Up:

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clear up spills immediately with absorbent and dispose of waste safely.

Reference to Other Sections

See Heading 8: Exposure Controls and Personal Protection.

7. HANDLING AND STORAGE

Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Do not breathe mist, vapours, spray.

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.



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Information about fire and explosion protection:

Keep respiratory protective device available.

No special measures required.

Conditions for safe storage, including any incompatibilities:

Storage: Oxidizers, reducing agents, strong bases and metals.

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Protect from humidity and water.

Unsuitable material for receptacle: steel.

Unsuitable material for receptacle: aluminium.

Information about storage in one common storage facility:

Do not store together with alkaline products, oxidizers or reducing agents.

Store away from foodstuffs.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Store receptacle in a well-ventilated area.

Keep container tightly sealed.

Specific end use(s) No further relevant information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate Engineering Controls:

Engineering Measures Showers. Eyewash Stations. Ventilation Systems.

Individual Protection Measures:

Respiratory protection: Use local exhaust or dilution ventilation.

Hand protection: Chemical resistant gloves.

Eye protection: Safety goggles or full-face shield.

Skin protection: Use body-covering impervious clothing.

Working hygiene: Take usual precautions when handling. Workers should wash hands before eating, drinking or smoking.

Exposure Guidelines:

ortho-Phosphoric Acid: ACGIH TWA 1 mg/m³

ACGIH STEL 3 mg/m³

OSHA PEL (TWA) 1 mg/m³

Hydrochloric Acid: ACGIH TLV Ceiling 7 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State

Liquid

Appearance

Clear liquid.

Colour

Clear blue.

Property

Values

Odour

Cherry.

Odour Threshold

No data available.

Remarks/Method

pH

0.8 (+/-0.25)

None known

Melting/Freezing Point

No data available

None known



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Boiling Point/Range	No data available	None known
Flash Point	Not applicable.	None known
Evaporation Rate	Similar	None known
Flammability (solid, gas)	Not flammable	None known
Flammability Limit in Air:		
Upper Limit	No data available	None known
Lower Limit	No data available	None known
Vapour Pressure	No data available	None known
Vapour density	No data available	None known
Specific Gravity	1.092 (+/-0.005) g/cm ³	
Water Solubility	Soluble in water.	None known
Solubility Other Solvents	No data available	None known
Partition Coefficient:		
n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition Temperature	No data available	None known
Kinematic Viscosity	No data available	None known
Dynamic Viscosity	No data available	None known
Explosive Properties	No data available	None known
Oxidizing Properties	No data available	None known

Other Properties:

Softening Point	No data available
VOC Content %	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity	Violent exothermic reaction with (some) bases. Violent to explosive reaction with many compounds e.g.: with (strong) oxidizers and with (strong) reducers.
Chemical stability	Stable under recommended handling and storage conditions (see section 7).
Thermal decomposition/conditions to avoid:	No decomposition if used and stored according to specifications.
Possibility of hazardous reactions	Not established.
Conditions to avoid	Direct sunlight. Extremely high or low temperatures. Contact with metallic substances.
Hazardous decomposition products	Carbon oxides (CO, CO ₂). Sodium oxides. Carbon monoxide. Carbon dioxide. Thermal decomposition generates: corrosive vapours and hydrogen chloride.
Materials to avoid	Metals such as aluminum. Reducing agents. Strong bases. Cyanides
Hazardous polymerization	Will not occur

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: Harmful if swallowed.

LD/LC50 values relevant for classification:

ortho-Phosphoric Acid CAS# 7664-38-2:

LD50 (Oral, rat): 1,530 mg/kg



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LD50 (Dermal, rat): 2,740 mg/kg

Hydrochloric Acid CAS# 7647-01-0:

LD50 (Oral, rat): 700 mg/kg

LD50 (Dermal, rat): 5,010 mg/kg

On the skin: Causes severe skin irritation or skin burns.

On the eye: Causes serious eye damage.

Respiratory or Skin Sensitization: Fragrance is classified as a skin sensitizer.

Additional toxicological information:

Carcinogenicity: Not classified as hazardous.

Reproductive Toxicity: Not classified as hazardous.

Specific Target Organ Toxicity

Single Exposure: Not classified as hazardous.

Specific Target Organ Toxicity

Repeated Exposure: Not classified as hazardous.

Aspiration Hazard: Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

Toxicity:	Not available
Persistence and Degradability:	Not available
Bioaccumulative Potential:	Not available
Mobility in Soil:	May be harmful to plant growth, blooming and fruit formation.
Other Adverse Effects	Not available
Other Information:	Avoid release to the environment.

13. DISPOSAL

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.

Ecology – Waste Materials: Avoid release to the environment.

14. TRANSPORTATION INFORMATION

Canadian T.D.G.: Regulated Material

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.

Contains: Phosphoric acid, hydrochloric acid.

Hazard Class: 8

ID Number: UN 3264

Packing Group: III



US DOT: Regulated material

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.

Contains: Phosphoric acid, hydrochloric acid

Hazard Class: 8

ID Number: UN 3264

Packing Group: III



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Water Transportation (IMDG): Regulated Material

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.

Contains: Phosphoric acid, hydrochloric acid.

Hazard Class: 8

ID Number: UN 3264

Packing Group: III



Air Transportation (IATA): Regulated Material

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.

Contains: Phosphoric acid, hydrochloric acid.

Hazard Class: 8

ID Number: UN 3264

Packing Group: III



15. REGULATORY INFORMATION

Occupational Health & Safety Regulations:

WHMIS Classification: Class D - Division 2B, Class E



OSHA & WHMIS: MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) and Canadian WHMIS regulations (Controlled Products Regulations under the Hazardous Products Act).

International Inventories

TSCA

Complies



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DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - All components of this product are listed or are exempt or excluded from listing on the United States Toxic Substances Control Act Section 8(b) Inventory.

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

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

HMIS III Rating

Health: 3 Serious Hazard

Flammability: 0 Minimal Hazard

Physical: 0 Minimal Hazard

Personal Protection: B

SDS US (GHS HazCom 2012 and WHMIS 2015)

16. OTHER INFORMATION

Prepared By: Technical Department

Issuing Date: September 20, 2018

Disclaimer:

The manufacturer warrants that this product conforms to its standard specification when used according to direction. To the best of our knowledge the information contained herein is accurate. However, we do not assume accuracy or completeness of the information contained herein.

Final determination of the suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

End of Safety Data Sheet