

Houghton Chemical Corporation

Safety Data Sheet

SECURITY® System Cleaner



Section 1 - Identification			
Manufacturer Address	Houghton Chemical Corporation 52 Cambridge Street, Allston, MA 02134 1-617-254-1010 or 1-800-777-2466		
Emergency Telephone	CHEMTREC: 1-800-424-9300		
Chemical Name & Synonyms	Organic Acid Mixture		
Chemical Family	Multi-use Iron Removal Treatment		
Recommended Use	Heat Transfer System Cleansing		
Restrictions on Use	Consult with Houghton Chemical representative for use recommendations.		
Section 2 – Hazard(s) Identification			
Hazard Classification	Skin Corrosion: Category 1B Eye Damage: Category 1 Sensitization – Skin: Category 1 Specific Target Organ Toxicity (Repeated Exposure): Category 2		
Signal Word	Danger		
Hazard Statement	Causes severe skin burns and eye damage. Causes serious eye damage. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure.		
Pictogram Description	Corrosion, Health Hazard, Exclamation Point		
Precautionary Statement	<p>Prevention: Do not breathe dust, fume, gas, mist, vapors or spray. Wash hands and other contacted skin thoroughly after handling. Wear eye protection (splash goggles, full face shield), protective gloves and protective clothing (chemically impervious). Contaminated work clothing must not be allowed out of the workplace.</p> <p>Response: If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with plenty of water under shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse. Get medical attention if you feel unwell. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or a doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or a doctor.</p> <p>Storage: Store locked up.</p> <p>Disposal: Contact local sewer, municipal, state and/or federal agencies to determine appropriate disposal options for the product. Dispose of this container with a registered reconditioner or as otherwise appropriate.</p>		
Any other Hazard not otherwise classified	Not Applicable		
Section 3 – Composition and Information on Ingredients			
Chemical Name	Common name and synonyms	CAS #	% by weight
2-Hydroxy -1,2,3,- Propanetricarboxylic Acid	N/A	77-92-9	15-40%
Hydroxyacetic Acid	N/A	79-14-1	0-10%
Hydroxyphosphonoacetic Acid	N/A	23783-26-8	0-10%
Non-Hazardous Ingredient	N/A	N/A	40-85%

Section 4 – First aid Measures	
Symptoms of Exposure	
Acute	Irritation of affected area with symptoms of reddening, itching, burning, possible permanent damage, nausea, vomiting
Delayed	Irritation of affected area with symptoms of reddening, itching, swelling, burning, possible permanent damage, nausea, vomiting, weakness, abdominal pain, muscle tenderness, respiratory failure.
Inhalation	Vapors and mists cause respiratory irritation and may be harmful if inhaled.
Skin	Irritation may result. May be harmful if absorbed through skin.
Eye Contact	Irritation may cause transitory stinging and tearing.
Ingestion	May be harmful if swallowed.
First Aid Instructions	
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, consult a doctor and administer oxygen. Consult a doctor if breathing difficulties persist.
Skin	Immediately remove contaminated clothes and shoes. Wash skin with soap and plenty of water for at least 15 minutes. Consult a doctor if any irritation persists.
Eye Contact	Flush eyes with plenty of water for 15 minutes. If the patient is wearing contact lenses, remove them and continue flushing eyes with water. Get medical attention.
Ingestion	DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. If patient can swallow, give 2 glasses of water to drink. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to victim to further dilute the chemical. Get medical attention.
Other	Consult a physician. Show safety data sheet to the doctor in attendance.
Section 5 – Fire Fighting Measures	
Suitable Extinguishing Material	Water fog, water spray, alcohol foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Material	None known other than material that can splatter 100°C/212°F
Hazards from Combustion	Smoke may contain the original material in addition to but not limited to: Carbon Monoxide.
Special Protective Equipment for Firefighters	Wear self-contained breathing apparatus and protective suit. Evacuate personnel to safe areas and keep upwind of fire.
Section 6 – Accidental Release Measures	
Use of personal precautions	Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment.
Protective equipment to prevent the contamination of skin, eyes, and clothing.	Use of safety glasses or goggles is recommended. Face protection (such as a full face shield), chemical resistant gloves, chemical resistant apron, boots, and full suit may be necessary depending on the extent of clean up task. If ventilation does not control airborne concentration then respiratory protection equipment that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements should be used.
Methods and materials used for containment	Collect liquid in an appropriate container or absorb with inert material and place in chemical waste container.
Cleanup procedures	Do not flush to sewer. Comply with all federal, state, and local regulations.
Section 7 – Handling and Storage	
Precautions for safe handling	Protect container from physical damage. Wear appropriate personal protection equipment. Do not expose containers to open flame, excessive heat, or direct sunlight. Use local exhaust over processing area. Do not eat, drink or smoke around products.
Recommendations on the conditions for safe storage, Storage/handling incompatibilities.	Store in a cool, dry and well ventilated area away from sources of heat, moisture and incompatible materials like strong acids, bases, oxidizers, flammables. Observe all warnings and precautions listed for the product. Keep container closed to prevent contamination.
Section 8 – Exposure Controls/Personal Protection	
OSHA Permissible Exposure Limits (PELs)	N/A
American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values	N/A

Other Exposure Limits	N/A				
Engineering Control	General room ventilation plus local exhaust at points of emission to maintain levels of airborne contaminants below exposure limits.				
Individual Protection Measures	Wear protective safety glasses or goggles, face protection, gloves, apron, vapor respirator.				
Section 9 – Physical and Chemical and Chemical Properties					
Appearance (physical state, color, etc.)	Liquid, Clear, Amber				
Upper/lower flammability or explosive limits	Data not available				
Odor	Trace Characteristic				
Vapor pressure	~13mmHg				
Odor threshold	No data available				
Vapor density (air = 1)	0.60				
pH	< 7				
Relative density	1.14				
Freezing point (as 50%)	Approx. 32°F/0°C				
Solubility(ies)	Miscible in water				
Initial boiling point and boiling range	212°F/100°C				
Flash point	>200°F				
Evaporation rate (Butyl Acetate = 1)	<1				
Flammability (solid, gas)	Non Flammable				
Partition coefficient: n-octanol/water	Not Applicable				
Auto-ignition temperature	Data not available				
Decomposition temperature; and	Not Applicable				
Viscosity	Data not available				
Section 10 – Stability and Reactivity					
Reactivity	Product is stable under typical use temperatures.				
Chemical Stability	Stable under normal conditions of use and storage.				
Hazardous Reactions	Avoid contact with oxidizing materials, strong bases, strong acids and any other type of reactive material.				
Conditions to Avoid	Excessive temperature, flames, ignition sources and incompatibles.				
Incompatible Materials	Avoid contact with oxidizing agents, strong bases and strong acids.				
Decomposition Products	Carbon dioxide and carbon monoxide may form when heated to decomposition.				
Section 11 – Toxicological Information					
Likely Routes of Exposure	Eyes / Skin / Ingestion / Inhalation				
	Effects from Short Term Exposure		Effects from Long Term Exposure		
Delayed Effects	Irritation of affected area		Irritation of affected area		
Immediate Effects	Irritation of affected area		Irritation of affected area		
Chronic Effects	Not Applicable.		Not Applicable.		
The numerical measures of toxicity (e.g., acute toxicity estimates such as the LD50 (median lethal dose)) - the estimated amount [of a substance] expected to kill 50% of test animals in a single dose.			Ingestion: LD50 - CAS# 77-92-2 - Rat - 3000mg/Kg, CAS# 79-14-1 - Rat - 4,240mg/L, CAS# 23783-26-8 - Rat - 2754mg/Kg.		
Description of the symptoms. This description includes the symptoms associated with exposure to the chemical including symptoms from the lowest to the most severe exposure.			Irritation of affected area with symptoms of reddening, itching, swelling, burning, possible permanent damage, nausea, vomiting, weakness, abdominal pain, muscle tenderness, respiratory failure.		
Listed in the National Toxicology Program (NTP) Report on Carcinogens?	Not listed.	Found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs?	Not listed.	Found to be a potential carcinogen by OSHA?	Not listed.
Section 12 – Ecological Information					
Ecotoxicity	LC:50 CAS #77-92-9 dosage 440-706mg/l 96hr Gold fish, CAS# 79-14-1 No dosage information available, CAS#23783-26-8 dosage 140mg/l 48hr Daphnia Magna.				

Persistence and Degradability	The component(s) of this product are not subject to rapid biodegradation.	
Bioaccumulation	No Data Available	
Mobility in Soil	No Data Available	
Other Adverse Effects	No Data Available	
Section 13 – Disposal Considerations		
Do not dump into sewers, on ground or into any bodies of water. Contact local sewer, municipal, state and/or federal agencies to determine appropriate disposal options		
Section 14 – Transport Information		
Is product DOT regulated in Non-Bulk packaging?	No	
DOT BULK		
UN number	Not Regulated	
UN proper shipping name	Non Regulated Material	
Transport hazard class(es)	Not Regulated	
Packing group number	Not Regulated	
Environmental hazards (e.g., identify if it is a marine pollutant according to the International Maritime Dangerous Goods Code (IMDG Code))	Not Regulated	
Guidance on transport in bulk (according to Annex II of MARPOL 73/783 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code (IBC Code))	Not Regulated	
Any special precautions which an employee should be aware of or needs to comply with, in connection with transport or conveyance either within or outside their premises	None	
Section 15 – Regulatory Information (Not indicated anywhere else on this SDS)		
Safety Regulations	OSHA Hazard Communication Standard: This product is an Irritant and is therefore considered to be a Health Hazard as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.	
Health Regulations	Not Available	
Environmental Regulations	Not Available	
SARA 311/312	Based upon available information, this material is classified as the following health and/or physical hazards according to Section 311 & 312	Superfund Amendments and Reauthorization Act of 1986 Title III (SARA) Sections 311 and 312: Immediate (Acute) Health Hazard - No; Delayed (Chronic) Health Hazard - No; Fire Hazard - No; Reactive Hazard - No; Sudden Release of Pressure Hazard - No. Section 313: To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.
HMIS	Blue/Health	1
	Red/Flammability	0
	Orange/Physical Hazard	0
	White/Personal Protection	C
NFPA 0(no hazard) to 4(severe risk)	Health (Blue)	1
	Flammability (Red)	0
	Instability/Reactivity (Yellow)	0
	Special (White)	0
US Toxic Substance Control Act	All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30	
CEPA – Domestic Substances List (DSL)	No data available	
Section 16 – Other Information		
The information herein is provided in good faith and believed to be accurate as of the effective revision date shown. 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 activities comply with all federal, state, provincial or local law.		

Product Dilutions Differentials						
Properties¹	60%	50%	40%	35%	30%	25%
SECURITY® System Cleaner		0%				
Performance Additives and Water		0%				
Specific Gravity (15/15°C 60/60°F)						
Reserve Alkalinity (min)						
Freeze Point Max		Approx. 32°F/0°C				
Revision Date: 12/10/2015						