


SAFETY DATA SHEET

Section 1: Identification

Product Identifier	DESCALE
Other Means Of Identification	N/A
Recommended Use	De-scaler
Initial supplier	GP Chemicals Specialty Ltd. 65 Beckett Avenue, Holland Landing, ON L9N 1R8 (905)731-3622
Emergency telephone number	1-888-226-8832
Issuing date	2019-02-14

Section 2: Hazardous Identification

Physical Hazards	Health hazards Acute toxicity, oral Category 4 Acute toxicity, dermal Category 4 Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2 Sensitization, skin Category 1 Specific target organ toxicity, single exposure Category 3 Hazardous to the aquatic environment, acute Category 2
Environmental Hazards	hazardous to the aquatic environment, category 3 long-term hazard OSHA defined hazards Not classified
Label Elements	
Signal word	Danger
Hazard statement	Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye irritation. May cause drowsiness or dizziness
Precautionary statement	Keep only in original packaging. Avoid breathing mist or vapor. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear eye/face protection. Wear protective gloves/protective clothing. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves: > 8 hours (breakthrough time): butyl rubber. Wear eye or face protection: Recommended: splash goggles. Wear protective clothing. Wash hands thoroughly after handling.

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Response if inhaled	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.
Response if swallowed	Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. 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 physician
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations. For surplus or bulk disposal, a professional licensed disposal contractor should be called for doing the job.
Hazards not otherwise classified (HNOC)	N/A

Section 3: Composition/Information On Ingredients

Chemical Name	CAS No.	Concentration %	Common names/ synonyms	Other identifiers
Hydrochloric acid	7647-01-0	15-40		

Section 4: First-Aid Measures

Inhalation	Take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment, use the buddy system). Remove source of contamination or move victim to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure. If breathing has stopped, trained personnel should begin artificial respiration (AR) or, if the heart has stopped, cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED) immediately. Avoid mouth-to-mouth contact by using mouth guards or shields. Quickly transport victim to an emergency care facility.
Skin Contact	Avoid direct contact. Wear chemical protective

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	<p>clothing, if necessary. Remove contaminated clothing. Wash affected area with lukewarm water for at least 30 minutes. If irritation persists, repeat flushing. DO NOT INTERRUPT FLUSHING. If necessary, and it can be done safely, continue flushing during transport to emergency care facility. Quickly transport victim to an emergency care facility. Double bag, seal, label and leave contaminated clothing, shoes and leather goods at the scene for safe disposal.</p> <p>NOTE: Any skin contact will also involve significant inhalation exposure. Seek immediate medical attention.</p>
Eye Contact	<p>Avoid direct contact. Wear chemical protective gloves, if necessary. Contact lenses should never be worn when working with this product. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto the face. Quickly transport victim to an emergency care facility. NOTE: Any eye contact will also involve significant inhalation exposure. Seek immediate medical attention.</p>
Ingestion	<p>NEVER give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. If vomiting occurs naturally, have victim rinse mouth with water again. Quickly transport victim to an emergency care facility.</p>
<p>*****</p> <p>Provide general supportive measures (comfort, warmth, rest). Consult a doctor and/or the nearest Poison Control Centre for all exposures. Some first aid procedures recommended above require advanced first aid training. Protocols for undertaking advanced procedures must be developed in consultation with a doctor.</p> <p>*****</p>	
<p><i>Most Important Symptoms And Effects, acute and Delayed</i></p>	
Skin	Burning of the skin instantly or shortly after straight on contact.
Eyes	Severe burning of the eyes and redness.
Ingestion	Will cause severe internal burns. DO NOT INDUCE VOMITING.

Section 5: Firefighting Measure

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Extinguishing Media Suitable	Non-flammable. Use water spray to keep fire-exposed containers cool. Extinguish fire using agent suitable for surrounding fire. Use water in flooding quantities as fog. Cool all affected containers with flooding quantities of water. Apply water from as far a distance as possible. Use water spray to knock-down vapours.
Extinguishing media specific hazards arising from the product	Not Available
Special protective equipment and precaution for firefighters	If possible, isolate containers and move them from the fire area if this can be done without risk, and protect personnel. Otherwise, fire-exposed containers or tanks should be cooled by application of hose streams and this should begin as soon as possible (within the first several minutes) and should concentrate on any unwetted portions of the container. Dike fire control water for appropriate disposal. DO NOT direct water at open or leaking containers and take precautions not to get water into the containers. Before allowing workers to enter such an area, especially confined areas, check the atmosphere with an appropriate monitoring device while wearing full protective gear.

Section 6: Accidental Release Measures

Personal precaution, Protection Equipment and Emergency procedures	Wear appropriate personal protective equipment. Ventilate area. Vapours evolved from the spill or leak can be knocked down with water fog or spray. Only enter area with PPE. Stop or reduce leak if safe to do so. Prevent material from entering sewers and waterways. Flush with water to remove any residue
Environmental precautions	Do not allow waste to be discharged direct to sewer or sources of water.
Methods for Containment and Cleaning Up	Spill Precautions: Evacuate all downwind, unprotected personnel. Restrict access to area until completion of cleanup. Ensure clean-up is conducted by fully-trained personnel only. Wear adequate personal protective equipment. Ventilate area. Notify government occupational health and safety and environmental authorities. Clean-up: Do not touch spilled material. Keep upwind and out of low areas. Prevent material from entering sewers, waterways or confined spaces. Stop or reduce leak if it can be done without risk. Water fog or spray may be necessary to knock down vapours. Recover spilled hydrochloric acid if feasible. Contain spill with earth, sand, or absorbent material which does not react with spilled material. Small spills: Contain and soak up spill with absorbent material which does not react

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	<p>with spilled chemical. Put material in suitable, covered, labeled containers. Flush area with water. Do not get water inside containers. Contaminated absorbent material may pose the same hazards as the spilled product. Large spills: Contact fire and emergency services and supplier for advice.</p>
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Section 7: Handling And Storage

Precautions for Safe Handling	<p>SKIN CONTACT HAZARD and CORROSIVE to the eyes and skin. Before handling, it is very important that engineering controls are operating and that protective equipment requirements and personal hygiene measures are being followed.</p> <p>People working with this chemical should be properly trained regarding its hazards and its safe use. Avoid generating hydrogen chloride vapours or mists. Prevent the release of vapours/mist into workplace air. Consider using closed handling systems for processes involving this material. If a closed handling system is not possible, use in the smallest possible amounts in a well-ventilated area, separate from the storage area. In case of leaks or spills, escape-type respiratory protective equipment should be available in the work area. If hydrochloric acid is released, immediately put on a suitable respirator and leave the area until the severity of the release is determined. Immediately report leaks, spills or ventilation failures. Do not use near welding operations, flames or hot surfaces. Do not use with incompatible materials such as oxidizing agents, reducing agents, metals, bases, sulfuric acid, perchloric acid and many more. Never add water to a corrosive. Always add corrosives to water. When mixing with water, stir small amounts in slowly. Use cold water to prevent excessive heat generation.</p>
Conditions for Safe Storage	<p>Store in a cool, dry, well-ventilated area, out of direct sunlight and away from heat sources. Keep quantity stored as small as possible. Drums should be vented when received and then at least weekly to relieve internal pressure. Store away from incompatible materials, such as oxidizing agents, reducing agents, bases and metals. See section 10 Incompatibilities - Materials to Avoid section for more information. Use corrosion-resistant structural materials and lighting and ventilation systems in the storage area. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Post warning signs. Inspect periodically for damage or leaks. Consider leak</p>

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	<p>detection system with an alarm. Provide raised sills or ramps at doorways or create a trench which drains to a safe location. Floors should not allow liquids to penetrate. Use the type of container recommended by the chemical manufacturer or supplier. Inspect all incoming containers to make sure they are properly labeled and not damaged. Store containers at a convenient height for handling, below eye level if possible. Avoid stacking. Keep containers tightly closed when not in use and when empty. Protect from damage. Keep empty containers in separate storage area. Empty containers may contain hazardous residues. Keep closed. Contain spills or leaks by storing in trays made from compatible materials. Keep absorbents for leaks and spills readily available. Store away from incompatible materials such as oxidizing materials, reducing materials and strong bases. See section 10 for a more complete list of incompatibles.</p>
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Section 8: Exposures Controls/Personal Protection

Components	CAS NO.	Mg/m3	PPM	Non-standard Units	Basis
Hydrochloric acid	7647-01-0	<i>Ceiling: 3</i>	<i>Ceiling: 2</i>	Stel	Canada. Alberta OEL

Individual Protection Measures	
Eye/Face Protection	Gas tight chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should never be worn; they may contribute to severe eye injury.
Skin Protection	<p>RECOMMENDED (resistance to breakthrough longer than 8 hours): Butyl rubber, natural rubber, neoprene rubber, nitrile rubber, Viton(TM), Viton(TM)/Butyl rubber, Barrier (PE/PA/PE), Trelchem(TM) HPS, Trelchem(TM) VPS, Tychem(TM) SL (Saranex(TM)), Tychem(TM) CPF 3, Tychem(TM) F, Tychem(TM) BR/LV, Tychem(TM) Responder(TM), Tychem(TM) TK.</p> <p>RECOMMENDED (resistance to breakthrough longer than 4 hours): Polyvinyl chloride, Silver Shield/4H(TM) (polyethylene/ethylene vinyl alcohol). CAUTION, use for short periods only (resistance to breakthrough within 1 to 4 hours): Polyethylene. NOT RECOMMENDED for use (resistance to breakthrough less than 1 hour): Polyvinyl alcohol. Guidelines for hydrochloric acid, 37% RECOMMENDED (resistance to breakthrough longer than 8 hours): Butyl rubber, Neoprene rubber, Viton(TM), Viton(TM)/Butyl</p>

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	<p>rubber, Barrier (PE/PA/PE), Trelchem(TM) HPS, Trelchem(TM) VPS, Tychem(TM) SL (Saranex(TM)), Tychem(TM) CPF 3, Tychem(TM) F, Tychem(TM) BR/LV, Tychem(TM) Responder(TM), Tychem(TM) TK. CAUTION, use for short periods only (resistance to breakthrough within 1 to 4 hours): Polyethylene NOT RECOMMENDED for use (resistance to breakthrough less than 1 hour): Polyvinyl alcohol There is evidence that this material can cause serious skin injury (e.g., corrosion or skin absorption). Resistance of specific materials can vary from product to product. Breakthrough times are obtained under conditions of continuous contact, generally at room temperature. Evaluate resistance under conditions of use and maintain clothing carefully.</p>
<p>Respiratory Protection</p>	<p>NIOSH/OSHA RECOMMENDATIONS FOR HYDROGEN CHLORIDE (GAS) CONCENTRATIONS IN AIR: UP TO 50 ppm: Chemical cartridge respirator with cartridge(s)* to protect against hydrogen chloride; or gas mask with canister to protect against hydrogen chloride; or powered air purifying respirator with cartridge(s)* to protect against hydrogen chloride; or SAR; or full face piece SCBA. Above this level, a full face self-contained breathing apparatus is required. *NIOSH approved acid gas or organic vapour cartridge(s) are required. EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATION OR IDLH CONDITIONS: Positive pressure, full-facepiece SCBA; or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA. ESCAPE: Gas mask with acid gas canister; or escape-type SCBA. NOTE: Substance reported to cause eye irritation or damage; may require eye protection. NOTE: The IDLH concentration for hydrogen chloride is 50 ppm. NOTE: The purpose of establishing an IDLH value is to ensure that the worker can escape from a given contaminated environment in the event of failure of the most protective respiratory protection equipment. In the event of failure of respiratory protective equipment every effort should be made to exit immediately. Recommendations apply only to NIOSH approved respirators. Air-purifying respirators do not protect against oxygen-deficient atmospheres. ABBREVIATIONS: SAR = supplied-air respirator; SCBA = self-contained breathing apparatus. IDLH = Immediately Dangerous to Life or Health.</p>

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Section 9: Physical And Chemical Properties

Appearance	liquid
Color	Yellow
pH	1-4
Odour	<i>Pungent odor</i>
Odour Threshold	<i>No available</i>
Melting Point and Freezing Point	-25 c
Initial Boiling Point and Boiling Range:	100 c
Flash Point	Not Applicable
Evaporation Rate	< 1
Flammability (solid, gas)	Non-Flammable
Vapour Pressure	13 kpa (100mm Hg) @ 20 c
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	Not Available
Solubility in Water	Completely miscible
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	> 1500°C
Viscosity	Not available

Section 10: Stability And Reactivity

Reactivity	May react violently with incompatible substances. Large amounts of heat can be released when concentrate is mixed with water or with organic solvents.
Chemical Stability	Stable, heat and contamination could cause decomposition.
Possibility of Hazardous Reactions	Hazardous polymerization does not occur.
Conditions to Avoid	High temperatures, incompatibles.
Incompatible Materials	Avoid contact with metals.
Hazardous Decomposition Products	When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

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Section 11: Toxicology Information

Likely Routes of Exposure:

Inhalation Skin Contact Eye Contact Ingestion

This chemical can be hazardous when inhaled and/or touched.

Skin Corrosion/Irritation	<i>Corrosive. Avoid direct contact at all times</i>
Serious Eye Damage/Irritation	<i>Corrosive. Avoid direct contact at all times</i>
STOT (Specific Target Organ Toxicity) – Single Exposure	Causes respiratory irritation.
Aspiration Hazard	Severe exposure can result in pulmonary edema and corrosion of tissues in the nose and throat.
STOT(specific target organ toxicity)- repeated exposure	Prolonged exposure can cause erosion and discolouration of teeth and chronic inflammation of nose, throat, and airways. In general, long-term skin contact with low concentrations of corrosive materials can cause dry, red, cracked skin (dermatitis).
Respiratory and/or Skin Sensitization	Not available
Carcinogenicity	Not known as
Reproductive Toxicity	Not available
Development of Offspring	Not available
Sexual Function and Fertility	Not available
Effects on or via Lactation	Not available
Germ Cell	Not available
Mutagenicity	Not available
Interactive Effects:	Not available

Section 12: Ecology Information

Toxicity	Not available
Mobility In Soil	Not available
Other Adverse Effects	Not available

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Section 13: Disposal Considerations

Disposal Consideration	Dispose of product and containers in accordance with all federal, provincial and municipal regulations.
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Section 14: Transportation Information

Regulation	UN No.	Proper Shipping Name	Technical Name (for N.O.S. entry)	Transport Hazard Class(es)	Packing Group
Corrosive liquids	1805	(Hydrochloric acid) SOL'N	(Hydrochloric acid)	8	II

Land Transport

UN 1805 CORROSIVE LIQUID
(hydrochloric acid)
CLASS P.G III N.O.S

Sea Transport

UN 1805 CORROSIVE LIQUID
(hydrochloric acid)
CLASS P.G II N.O.S

Section 15: Regulatory Information

Safety, Health and Environmental Regulations

Workplace Classifications	Not available
SARA Title 3	Not available
TSCA status	Not available
WHMIS	Corrosive liquid. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the (M)SDS contains all of the information required by the CPR.
PROP 65(CA)	WARNING: This product may contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

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Section 16: Other Information

Date of latest revision **2019-02-14**

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