



BRODI SPECIALTY PRODUCTS LTD.
 3175 14th Avenue, Unit 1
 Markham, Ontario, L3R 0H1
 Canada
 1-877-744-0751

PRODUCT: COILDSCALE

CODE: 7281

SECTION 01: IDENTIFICATION

Supplier identifier..... BRODI SPECIALTY PRODUCTS LTD.
 3175 14th Avenue, Unit 1
 Markham, Ontario
 Canada
 L3R 0H1
 1-877-744-0751
 Product identifier..... COILDSCALE
 Product code..... 7281
 Emergency telephone number..... CANUTEC 24-hour number (613-996-6666).
 Product use..... Heavy duty acid coil descaler.

SECTION 02: HAZARD IDENTIFICATION



Hazard classification..... Skin Corrosion — Category 1B. Serious Eye Damage — Category 1. Specific target organ toxicity - single exposure - Category 3 (Respiratory system).
 Signal word..... DANGER.
 Hazard statement..... H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation.
 Precautionary statements
 Prevention..... P260 Do not breathe mist, vapours or spray. P264 Wash hands thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection.
 Response..... P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P363 Wash contaminated clothing before reuse. 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. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 Storage..... P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.
 Disposal..... P501 Dispose of contents/container to an approved waste disposal plant.
 Other hazards..... None known.

SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	WT. %
Hydrochloric acid	7647-01-0	23-27
Formic acid	64-18-6	1.5-2

SECTION 04: FIRST-AID MEASURES

Routes of exposure
 Inhalation..... If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
 Ingestion..... Rinse mouth and then drink plenty of water. Do not induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
 Skin contact..... Promptly wash skin thoroughly with soap and water and rinse for 15 minutes. Remove contaminated clothing and launder before reuse. If irritation develops, get medical aid.
 Eye contact..... Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical aid.
 Most important symptoms and effects, both acute and delayed . The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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SECTION 05: FIRE-FIGHTING MEASURES

Extinguishing media..... Use an extinguishing agent suitable for the surrounding fire.
 Hazardous combustion products..... Carbon oxides. Chlorine, Hydrogen chloride gas. Harmful vapours. The substances/groups of substances mentioned can be released in case of fire:
 Special protective equipment and precautions Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.
 Sensitivity to static discharge..... Product is not sensitive to static discharge.
 Sensitivity to mechanical impact..... Product is not sensitive to mechanical impact.
 Further information..... Contact with some reactive metals may produce flammable hydrogen gas.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Wear protective equipment: goggles, chemically resistant clothing and gloves, and appropriate respirator if in a confined area. Restrict access to area until completion of clean up. Evacuate personnel to safe areas. Ensure clean up is conducted by trained personnel only . Ventilate area if indoor.
 Environmental precautions..... If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply. Ventilate the area. Prevent further leakage or spillage if safe to do so . Do not discharge into drains/surface waters/groundwater.
 Methods and materials for containment and cleaning up Stop leak. Dike and contain spill. Neutralize spill with sodium bicarbonate. For residues: Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder). Dispose of absorbed material in accordance with regulations. Contaminated absorbent material may pose the same hazards as the spilled product . Notify the appropriate authorities as required.

SECTION 07: HANDLING AND STORAGE

Handling precautions..... Use good industrial hygiene practices in handling this material. Do not eat, drink or smoke when using this product . Do not get in eyes, on skin or on clothing. Avoid inhalation of mists/vapours/fumes. Wash thoroughly after handling. Keep container tightly closed .
 Storage needs..... Keep in a dry, cool and well-ventilated place. Protect from sunlight. . Keep containers tightly closed when not in use.
 Materials to avoid..... Keep away from strong bases. Do not mix with other chemicals or cleaners.

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL	NIOSH
Hydrochloric acid	2 ppm	not available	5 ppm	not available	5 ppm	
Formic acid	5 ppm	10 ppm	5 ppm	not available	not available	
Engineering controls.....	Good general ventilation (typically 10 air changes per hour) should be used . Facilities storing this material should be equipped with an eyewash facility and a safety shower.					
Individual protection measures						
Eye/type.....	Safety glasses with side-shields. Wear face shield if splashing hazard exists.					
Gloves/type.....	Wear chemical resistant protective gloves.					
Respiratory/type.....	If using in a poorly ventilated area, wear a properly fitted respirator (NIOSH approved) during exposure.					
Clothing/type.....	Wear clean long legged, long sleeved work clothes.					
Hygiene measures.....	Handle in accordance with good industrial hygiene and safety practice. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities.					

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance..... liquid.
 Color..... yellow.
 Odour..... pungent odour.
 Odour threshold..... not available.
 pH..... <1.
 Melting point (°C)..... not applicable.
 Freezing point (°C)..... < 0.
 Initial boiling point (°C)..... 100.
 Flash point (°C), Method..... not applicable.
 Evaporation rate..... not available.
 Upper flammability limit (% vol)..... not available.
 Lower flammability limit (% vol)..... not available.
 Vapour pressure (mm Hg)..... not available.
 Vapour density (air=1)..... > 1.
 Relative density/Specific Gravity..... 1.1.

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SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Water solubility..... soluble.
 Solubility in other solvents..... not available.
 Partition coefficient — n-octanol/water..... not available.
 Auto ignition temperature (°C)..... > 200 °C.
 Thermal decomposition temperature..... not available.
 Viscosity..... thin liquid.

SECTION 10: STABILITY AND REACTIVITY

Reactivity..... No hazardous reactions if stored and handled as prescribed/indicated.
 Chemical stability..... The product is stable if stored and handled as prescribed/indicated. Contact with some reactive metals may produce flammable hydrogen gas.
 Possibility of hazardous reactions..... No hazardous reactions when stored and handled according to instructions. The product is chemically stable. May develop chlorine if mixed with acidic solutions. Contact with some reactive metals may produce flammable hydrogen gas.
 Conditions to avoid..... Do not mix with other chemicals.
 Incompatible materials..... Alkaline material, metals.
 Hazardous decomposition products..... May include and are not limited to: hydrogen chloride, chlorine gas, oxides of nitrogen, ammonia, oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Hydrochloric acid	4.7 mg/l (1 hour-rat)	700 mg/kg (oral-rat); 5,010 mg/kg (dermal-rabbit)
Formic acid	7.85 mg/l (Inhalation-rat, 4H)	730 mg/kg (oral-rat)
Routes of exposure		
Inhalation.....	Inhalation of vapours may cause irritation to the nose, throat and respiratory tract.	
Ingestion.....	Ingestion may cause pain, irritation and burns in the mouth, throat and stomach.	
Skin contact.....	Skin contact causes irritation and possible burns.	
Eye contact.....	Eye contact may cause severe burns and permanent corneal injury. May be followed by blindness.	
Acute effects		
Acute oral toxicity.....	Acute toxicity estimate > 2,000 mg/kg. Method: calculation method. Virtually nontoxic after a single ingestion.	
Acute dermal toxicity.....	LD50 (Rabbit) : > 2,000 mg/kg. Method: calculation method. Virtually nontoxic after a single skin contact.	
Acute inhalation toxicity.....	Acute toxicity estimate : > 20 mg/l. Virtually nontoxic by inhalation. Method: calculation method.	
Skin corrosion/irritation.....	Result: Skin corrosion.	
Serious eye damage/eye irritation.....	Result: Corrosive to eyes.	
Respiratory or skin sensitisation.....	Non-sensitizing.	
Specific target organ toxicity (STOT) single exposure	Respiratory tract irritation.	
Aspiration hazard.....	No aspiration hazard expected.	
Chronic toxicity/effects		
Specific target organ toxicity (STOT) repeated exposure	No known significant effects or critical hazards.	
Carcinogenicity.....	No carcinogenic substances as defined by IARC, NTP, OSHA and/or ACGIH.	
Reproductive toxicity.....	No known significant effects or critical hazards.	
Germ Cell Mutagenicity.....	No known significant effects or critical hazards.	
Remarks.....	The product has not been tested. The statement has been derived from the properties of the individual components, pH and acid reserve.	
Symptoms of Exposure.....	The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known.	

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity..... May cause long-term adverse effects in the aquatic environment.
 Persistence and degradability..... The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.
 Bioaccumulative potential..... No data available.
 Mobility in soil..... No data available.
 Other adverse effects..... No data available.

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SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods
 Waste disposal of substance..... Dispose of in accordance with national, state and local regulations.
 Container disposal Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

SECTION 14: TRANSPORT INFORMATION

TDG classification..... UN1789, Hydrochloric acid solution, Class 8, PGII.

SECTION 15: REGULATORY INFORMATION

WHMIS regulatory status..... This product has been classified in accordance with the hazard criteria of the Canadian Hazardous Products Regulations and the Safety Data Sheet contains all the information required by the Hazardous Products Regulations (WHMIS 2015). This product is WHMIS 2015 controlled.

SECTION 16: OTHER INFORMATION

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.

Prepared by: CanChem Consultant
 Preparation date..... NOV 08/2017