SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier
Product Name PENSCRUB AG-150

Recommended use of the chemical and restrictions on use
Recommended use Acid cleaner – scale removal, hydrogen sulfide scavenger
Restrictions on use For industrial use only

Supplier details
West Penetone Inc.
11411-160 Street
Edmonton, AB,
T5M3T7
Tel: 780-454-3919

Emergency Telephone Number
Canutec (613)-996-6666

2. HAZARDS IDENTIFICATION

Classification

Corrosive to metals	Category 1

Acute toxicity, oral	Category 4
Skin corrosion/irritation	Category 1B
Serious eye damage/eye irritation	Category 1
Skin sensitizer	Category 1B
Germ cell mutagenicity	Category 2
Specific target organ toxicity – single exposure	Category 3

Label Elements

DANGER

Hazard Statements
May be corrosive to metals.
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of causing genetic defects (non-mammalian).
May cause respiratory irritation.

Precautionary Statements - Prevention
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep only in original packaging.
Do not breathe dust or mists.
Wash face, hands and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response
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 doctor/physician.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
If exposed or concerned, get medical advice/attention.
Absorb spillage to prevent material damage.

Precautionary Statements - Storage
Store locked up. Store in corrosive resistant/container with a resistant liner. Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant according to local, provincial/federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
hydrogen chloride	7647-01-0	7-13
glyoxal	107-22-2	7-13
alcohols, C9-11, ethoxylated	68439-46-3	1-5
citric acid	77-92-9	0.5-1.5

4. FIRST AID MEASURES

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Skin contact Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

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

Ingestion Do not induce vomiting. Drink 1 or 2 glasses of water. Call a physician or Poison Control Centre immediately. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Contact with liquid may cause immediate burns and permanent damage to eyes, skin and mucous membranes. Symptoms include pain with local reddening, blistering, ulceration or discoloration of tissues. Prolonged exposure to vapors or mists may cause redness, irritation, burns and difficulty breathing. Inhalation of concentrated vapors or mists may cause pulmonary edema and may be delayed for up to 48 hours. Prolonged or repeated exposure may cause sensitization by skin contact. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. The substance may cause damage to the kidney after repeated skin contact with high doses. Ingestion may cause pneumonitis if aspirated into lungs. See Section 2 for possible delayed effects.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
Water jet.

Specific hazards arising from the chemical
The product causes burns of eyes, skin and mucous membranes.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Avoid contact with skin, eyes and clothing. Use personal protective equipment. High risk of slipping due to leakage/spillage of product.

Environmental Precautions
Avoid discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up
Contain, neutralize, and solidify with inert absorbent material. Keep in suitable, closed containers for disposal. Following product recovery, flush area with water. For large spills, stop flow of material, prevent product from entering drains, and pump off product where this is without risk and possible. Proceed as above.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling Avoid contact with skin, eyes and clothing. Avoid breathing dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials Strong or chlorinated alkali, amphoteric or light metals

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Only constituents with exposure limits are listed. Any constituent not listed has no known exposure limit.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
hydrogen chloride 7647-01-0	TWA: 2 ppm ceiling	5 ppm/7 mg/m^3 ceiling	50 ppm
glyoxal 107-22-2	TWA: 0.1 mg/m^3 inhalable fraction and vapor	Not listed	Not listed

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas. Eye wash facilities and emergency shower must be made available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face Protection Splash proof goggles and face shield with high splashing risk.

Skin and body protection Rubber or neoprene gloves, rubber apron and boots.

Respiratory Protection Respiratory protection if ventilation is inadequate or in case of vapor/aerosol release.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash soiled clothing immediately.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE :
Clear, colorless to yellow liquid
ODOR
Acidic
ODOR THRESHOLD :
Not applicable
pH :
<1.0
MELTING POINT / FREEZING POINT :
Approx. <-40 ºC
BOILING POINT/BOILING RANGE :
Not available
FLASH POINT :
None
EVAPORATION RATE, water = 1 :
1
FLAMMABILITY (SOLID, GAS):
Not applicable

VAPOR PRESSURE, mm Hg AT 20ºC :
Not applicable
VAPOR DENSITY (Air = 1) :
Not applicable
RELATIVE DENSITY AT 20ºC:
1.125-1.130
SOLUBILITY IN WATER :
Complete
PARTITION COEFFICIENT, N-OCTANOL/WATER :
Not available
AUTO-IGNITION TEMPERATURE :
Not available
DECOMPOSITION TEMPERATURE:
Not available
VISCOSITY:
Not available
FLAMMABLE LIMITS :
UPPER: Not applicable **LOWER :** Not applicable

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under normal conditions.

Incompatible Materials
Strong or chlorinated alkali, amphoteric or light metals.

Conditions to Avoid
Store away from incompatible materials.

Possibility of hazardous reactions
None

Hazardous decomposition products
Hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

ATE_{mix} – LD50 oral – approx. ≥1469 mg/kg (rat), LD50 dermal – approx. >10994 mg/kg (rabbit), LC50 inhalation-mist – approx. 14.73 mg/L – 4 h (rat)

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
hydrogen chloride 7647-01-0	700-900 mg/kg (rat)	>5000 mg/kg (rabbit)	4.66 mg/L aerosol– 4 h rat 3124 ppm gas – 1 h rat
glyoxal 107-22-2	200 mg/kg (rat)	>2000 mg/kg (rat)	5.79 mg/L aerosol– 4 hr (rat)
alcohols, C9-11, ethoxylate 68439-46-3	>2000 mg/kg (rat)	>2000 mg/kg (rabbit)	Not applicable
citric acid 77-92-9	3000 mg/kg(rat)	Not listed	Not listed

Information on likely sources of exposure

Serious eye damage/irritation Corrosive to eyes and may cause grave lesions, including blindness.
Skin corrosion/irritation Corrosive to skin. May cause skin irritation and possible sensitization.
Ingestion Ingestion may cause burns to the digestive and respiratory tract.
Inhalation Spray or mist may cause irritation or burns to respiratory tract.

Delayed and immediate effects and also chronic effects from short and long-term exposure

Respiratory or skin sensitization Glyoxal (CAS 107-22-2) 1B May cause an allergic skin reaction
Germ cell mutagenicity Glyoxal (CAS 107-22-2) 2 Suspected of causing genetic defects in non-mammalian studies
Carcinogenicity No listed human carcinogens.
Reproductive toxicity No information available.
STOT - single exposure Glyoxal (CAS 107-22-2) 3 Causes temporary irritation of respiratory tract
STOT-repeated exposure Glyoxal (CAS 107-22-2) 2 May cause kidney damage after repeated ingestion or repeated skin contact with high doses.
Aspiration Hazard None known.

Symptoms related to the physical, chemical and toxicological characteristics
Symptoms include tingling sensation and / or reddening of tissues, eventually leading to burn lesions. See Section 2 & 4.

12. ECOLOGICAL INFORMATION

Ecotoxicity
If available, ecotoxicity values of individual components are shown below.

Chemical Name	Fish	Waterflea	Algae
hydrogen chloride 7647-01-0	282 mg/L: 96 h gambusia affinis LC50	Not listed	Not listed
glyoxal 107-22-2	>460-<680 mg/L: 96 h Leusciscus idus LC50	404 mg/L: 48 h Daphnia magna EC50	>100 mg/L: 72 h Scenedesmus subspicatus EC50
alcohols, C9-11, ethoxylate 68439-46-3	5-10 mg/L: 96 h LC50	5-10 mg/L: 48 h EC50	10-100mg/L: 72 h
citric acid 77-92-9	440-706 mg/L: 96 h goldfish LC50	Not listed	Not listed

Persistence and degradability
Not applicable to inorganic materials.

Bioaccumulative potential
Significant accumulation in organisms is not to be expected.

Mobility in soil
No information available

Other adverse effects
Do not release untreated in natural waters.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with local regulations.

Contaminated Packaging Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

TDG classification

UN 3264, Corrosive Liquid, Acidic, Inorganic, N.O.S. (contains hydrochloric acid), Class 8, PG II

15. REGULATORY INFORMATION

All ingredients are listed on the DSL

16. OTHER INFORMATION

Preparation Date 7 October, 2016
Revision Date 22 November, 2017
Revision Note Adjustments to Section 2 and Section 11 – updates in raw material information and hazard classifications

Disclaimer
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End of SDS