

Safety Data Sheet

Scale Away

1. IDENTIFICATION

Product Identifier: Scale Away

Product Number: 02-2094

Canadian TDG: UN3264

Synonyms: None known

Chemical Family: Not known

Recommended Use: Industrial descalant, boiler scale removal, pickling & metal cleaning, and pH control.

Restrictions on Use: None

Manufacturer / Supplier:

Genesis Chemicals

602 – 13th St SE

Medicine Hat, AB

T1A 1X3

Prepared by: The Environmental, Health and Safety Department of Genesis Chemicals Ltd

Preparation Date of SDS: February 7, 2017

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2. HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity Oral – Category 4; Acute Toxicity Inhalation – Category 4; Skin Corrosion – Category 1B; Serious Eye Damage – Category 1; Specific Target Organ Toxicity Single Exposure, Respiratory Tract Irritation – Category 3



Signal Word: Danger

Hazard Statement(s):

Harmful if swallowed.

Harmful if inhaled.

Causes severe skin burns and eye damage.

Causes serious eye damage.

May cause respiratory irritation.

Precautionary Statement(s):

General:

Keep out of reach of children.
Read label before use.

Prevention:

Do not breathe dust/ fumes/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Do not eat drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.

Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/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. Call a poison center or doctor/physician if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a poison center or doctor/physician.

Storage:

Store in a closed container.
Store in a dry place.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards:

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No. | Concentration % |
|-----------------------------|-----------|-----------------|
| Hydrogen Chloride Anhydrous | 7647-01-0 | 10 - 30 |
| Phosphoric Acid | 7664-38-2 | 10 - 30 |

Notes

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. Keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor if you feel unwell or are concerned.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with

lukewarm, gently flowing water for 15-20 minutes. If skin irritation or a rash occurs, get medical advice/attention. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion

Immediately call a Poison Centre or doctor. Do not induce vomiting.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: Effects from inhalation of mist and spray may cause serious damage of the upper respiratory tract, depending on severity of exposure. Symptoms may vary from mild to severe irritation, sneezing, sore throat or runny nose. Severe pneumonitis may occur.

If on skin: Contact with skin can cause redness, irritation or severe burns and scarring with greater exposures.

If in eyes: Contact with mist, spray or liquid causes redness, severe irritation or burning in eyes. Prolonged exposures can cause burns that may result in permanent impairment of vision, even blindness.

If swallowed: Symptoms may include burns of mouth, throat, and stomach bleeding, vomiting, diarrhea, fall in blood pressure.

Immediate Medical Attention and Special Treatment

Special Instructions

Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media

Water jet.

Specific Hazards Arising from the Chemical

When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Approach fire from upwind to avoid hazardous vapours or gases.

Stop leak before attempting to put out the fire. Product could form an explosive mixture and reignite. Keep containers cool to avoid bursting.

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours, flammable or explosive atmosphere.

Dike and recover contaminated water for appropriate disposal.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn. If there is potential for skin contact with concentrated cleaner: chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

Special Exposure Hazards

Reacts with metals to generate flammable hydrogen gas. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure build-up which could result in container rupture. Use water spray or fog to reduce or direct vapors.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Concentrated product: evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Distant ignition and flashback are possible.

Increase ventilation to area or move leaking container to a well-ventilated and secure area. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Before entry, especially into confined areas, check atmosphere with an appropriate monitor. Monitor area for flammable or explosive atmosphere.

Product (diluted as directed): use the personal protective equipment recommended in Section 8 of this safety data sheet. No other special precautions are necessary.

Environmental Precautions

Concentrated product: do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

Concentrated product: small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Do NOT use combustible materials such as sawdust. Place used absorbent into suitable, covered, labelled containers for disposal.

Concentrated product: large spills or leaks: cover the spill surface with the appropriate type of foam to reduce the release of vapour. Dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Dike and recover contaminated water for appropriate disposal. Store recovered product in suitable containers that are: tightly-covered.

Product (diluted as directed): no special clean-up methods are necessary.

Other Information

Report spills to local health, safety and environmental authorities, as required.

7. HANDLING AND STORAGE

Precautions for Safe Handling

When handling diluted product: no special handling precautions are necessary.

When handling concentrated product: only use where there is adequate ventilation. Avoid generating vapours or mists. Keep containers tightly closed when not in use or empty. Wear personal protective equipment to avoid direct contact with this chemical.

Do NOT smoke in work areas. Wash hands thoroughly after handling this material. Immediately remove contaminated clothing using the method that minimizes exposure. Keep contaminated clothing under water, in closed containers. Launder clothes before rewearing. Inform laundry personnel of product hazard(s). Do not take contaminated clothing home.

Conditions for Safe Storage

Concentrated product: store in an area that is: temperature-controlled, well-ventilated, out of direct sunlight and away

from heat and ignition sources, an approved, fire-resistant area, separate from incompatible materials (see Section 10: Stability and Reactivity). Store in a closed container.
 Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Keep amount in storage to a minimum. Avoid bulk storage indoors.
 Comply with all applicable health and safety regulations, fire and building codes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| Ingredients | ACGIH® TLV® | OSHA PEL | IDLH |
|-----------------------------|---|---|------------------------|
| Hydrogen Chloride Anhydrous | 2 ppm Ceiling | 5 ppm Ceiling 7 mg/m ₃ Ceiling | 50 ppm |
| Phosphoric Acid | 3 mg/m ₃ STEL 1 mg/m ₃ TLV-TWA | 1 mg/m ₃ TWA 3 mg/m ₃ STEL | 1000 mg/m ₃ |

Consult local authorities for provincial or state exposure limits.

Appropriate Engineering Controls

General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists. When handling large quantities of concentrated product: use a local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored.

Individual Protection Measures

Eye/Face Protection

Do not get in eyes. Wear chemical safety goggles.

Skin Protection

Prevent all skin contact. Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: Barrier® (PE/PA/PE), Silver Shield/4H® (PE/EVAL/PE), Tychem® Responder, Tychem® TK.

The following materials should NOT be used: neoprene rubber, nitrile rubber, polyvinyl alcohol.

Respiratory Protection

Not normally required if product is used as directed.

Concentrated product: wear a NIOSH approved air-purifying respirator with an organic vapour cartridge.

For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an organic vapour Cartridge, or, wear a NIOSH approved self-contained breathing apparatus (SCBA) or supplied air respirator.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

9. CHEMICAL AND PHYSICAL PROPERTIES

Basic Physical and Chemical Properties

| | |
|------------------------------|----------------|
| Appearance | Fuming liquid |
| Odour | Sharp pungent |
| Odour Threshold | Not available |
| pH | < 2 |
| Melting Point/Freezing Point | <-20°C / <-4°F |

| | |
|---|--|
| Initial Boiling Point/Range | >100°C / >212°F |
| Flash Point | None |
| Evaporation Rate | Not available |
| Flammability (solid, gas) | Not applicable (liquid). |
| Upper/Lower Flammability or Explosive Limit | Not available (upper); Not available (lower) |
| Vapour Pressure | Not available |
| Vapour Density (air = 1) | Not available |
| Specific Gravity | 1.10 – 1.25 |
| Solubility | Soluble in water; soluble in alcohol |
| Partition Coefficient, n-Octanol/Water (Log Kow) | Not available |
| Auto-ignition Temperature | Not available |
| Decomposition Temperature | Not available |
| Viscosity | Not available |
| Other Information | |
| Physical State: | Liquid |

10. STABILITY AND REACTIVITY

Reactivity

Not reactive. Not sensitive to mechanical impact.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Excessive heat, open flames, direct sunlight.

Incompatible Materials

Large amounts of heat can be generated when concentrated acid is mixed with water or organic solvents. Very corrosive to most metals, producing flammable hydrogen gas. Reacts violently with bases to produce heat. Reacts with reducing agents to produce heat, fire and flammable hydrogen gas. Reacts with oxidizing agents to produce heat and toxic or corrosive chloride gases. Contact with explosives may cause detonation. Reacts with cyanides to produce toxic cyanide gas, and sulphides to produce toxic hydrogen sulphide gas.

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 fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

| Chemical Name | LC50 | LD50 (oral) | LD50 (dermal) |
|-----------------------------|--------------------------------|------------------|---------------------|
| Hydrogen Chloride Anhydrous | Rat = 3124 ppm 1h | Rat = 700 mg/kg | Rabbit > 5010 mg/kg |
| Phosphoric Acid | Rat > 850 mg/m ³ 1h | Rat = 1530 mg/kg | Rabbit = 2730 mg/kg |

Acute Toxicity Estimates (ATE)

Acute Oral Toxicity: No data available
 Acute Inhalation Toxicity: No data available
 Acute Dermal Toxicity: No data available

Skin Corrosion/Irritation

May cause mild irritation based on information for closely related chemicals.

Serious Eye Damage/Irritation

No data available

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No data available

Aspiration Hazard

No data available

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No data available

Respiratory and/or Skin Sensitization

No data available

Carcinogenicity

| Chemical Name | IARC | ACGIH | NTP | OSHA |
|-----------------------------|------------|------------|------------|------------|
| Hydrogen Chloride Anhydrous | Group 3 | A4 | Not Listed | Not Listed |
| Phosphoric Acid | Not Listed | Not Listed | Not Listed | Not Listed |

Reproductive Toxicity

Development of Offspring

This product is not expected to cause developmental effects.

Sexual Function and Fertility

This product is not expected to cause reproductive effects.

Germ Cell Mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Interactive Effects

No information was located.

Chronic Effects

Prolonged contact with dilute solutions or mists has a destructive effect upon tissue.

Additional Information:

No information was located.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

| Ingredients | Ecotoxicity - Fish Species Data | Acute Crustaceans Toxicity: | Ecotoxicity - Freshwater Algae Data |
|-----------------------------|--|-----------------------------|-------------------------------------|
| Hydrogen Chloride Anhydrous | 282 mg/L LC50 (Gambusia affinis) 96 h static | Not Available. | Not Available. |
| Phosphoric Acid | 3 - 3.5 mg/L LC50 (Gambusia affinis) 96 h | Not Available. | Not Available. |

Other Information:

Do not allow product or runoff from fire control to enter storm or sanitary sewers, lakes, rivers, streams or public waterways. Block off drains and ditches. Spill areas must be cleaned and restored to original condition or to the satisfaction of authorities. May be harmful to aquatic life. Biodegrades (slow). Rapid volatilization. Not expected to bioconcentrate.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Recommended disposal methods are for the product, as sold. (Used material may contain other hazardous contaminants). The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user.

Burn in an approved incinerator according to federal, provincial/state, and local regulations.

Empty containers retain product residue. Follow label warnings even if container appears to be empty. The container for this product can present explosion or fire hazards, even when emptied. Do not cut, puncture, or weld on or near this container.

14. TRANSPORT INFORMATION

DOT (U.S.):

DOT Shipping Name: HYDROCHLORIC ACID

DOT Hazardous Class 8 (2.3)

DOT UN Number: UN1789

DOT Packing Group: II

DOT Reportable Quantity (lbs): Not Available.

Note: No additional remark.

Marine Pollutant: No.

TDG (Canada):

TDG Shipping Name: HYDROCHLORIC ACID

Hazard Class: 8

UN Number: UN1789

Packing Group: II

Note: No additional remark.

Marine Pollutant: No.

Special Precautions for User

Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION

Canada

WHMIS Classification

D1A – Very Toxic Materials

E – Corrosive Material

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by the Controlled Products Regulations.

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

16. OTHER INFORMATION

Additional Information: This product has been classified in accordance with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and the SDS contains all the information required by the Hazardous Products Regulations (HPR).

Prepared by: The Environmental, Health and Safety Department of Genesis Chemicals Ltd

Date of Latest Revision: February 7, 2017

Key to Abbreviations: IARC = International Agency for Research on Cancer. Group 3 = Not classifiable as to its carcinogenicity to humans. ACGIH® = American Conference of Governmental Industrial Hygienists. A4 = Not classifiable as a human carcinogen. NTP = National Toxicology Program. OSHA = US Occupational Safety and Health Administration. ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. STEL = Short-term Exposure Limit. A4 = Not classifiable as a human carcinogen. OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. IDLH = Immediately Dangerous to Life and Health.

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*****END OF SDS*****