

MATERIAL SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product identifier: **AQUASCAPE PRO WATERFALL GUN CLEANER**

Chemical family: Mixture of Ketone, alcohol and propellant.

Product use: Aerosolized solvent mixture flushed through a gun dispenser to clear away foam residue.

Manufacturer's name and address:

Hago Chemotechnik GmbH & Co.

Bodensee Strasse 217

D-81243

Munchen, Germany

USA Agent:

Todol Products Inc.

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SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>% (weight)</u>	<u>ACGIH TLV - TWA</u>	<u>OSHA PEL</u>
Acetone	67-64-1	25 - 50	500 ppm	1000 ppm
Isopropanol	67-63-0	25 - 50	200 ppm	400 ppm
Butane	106-97-8	25 - 50	*1000 ppm	*800 ppm

*Note: The ACGIH TLV listed above for Butane is for 'Aliphatic hydrocarbon gases'. The OSHA PEL listed above for Butane is a final rule / vacated value.

This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

SECTION 3 — HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Clear, colorless, aerosolized liquid. Acetone-like odor.

Danger! Flammable aerosol. Contents under pressure. Container will explode if heated.

Harmful if inhaled. Inhalation may cause respiratory irritation and Central Nervous System effects.

May be harmful if swallowed. Causes eye irritation. Prolonged or repeated skin contact may dry skin and cause irritation.

POTENTIAL HEALTH EFFECTS

Target organs: Eyes, skin, respiratory system, digestive system, central nervous system.

Routes of exposure: Skin contact, eye contact, inhalation.

Signs and symptoms of short-term (acute) exposure:

Inhalation: Inhalation causes nasal and respiratory tract irritation. May cause dizziness, drowsiness, nausea, headache and other symptoms of central nervous system depression. In confined or poorly ventilated areas where the vapor concentration is very high, product may act as an asphyxiant and cause increased breathing and pulse rates, fatigue, nausea, vomiting and unconsciousness.

Skin: Direct skin contact may cause mild irritation. If product is sprayed directly onto the skin, symptoms of frostbite may be experienced including numbness, prickling and itching.

Eyes: Causes severe irritation and corneal damage. Symptoms may include redness, tearing and a burning sensation. Direct contact could cause freezing of the eye.

Ingestion: Ingestion is not an expected route of exposure for an aerosol. However, if the product is sprayed directly into the mouth, it can cause irritation to the mouth, throat and stomach. Additional symptoms may include dizziness, drowsiness, nausea, headache and other central nervous system effects. Product may present an aspiration hazard, if ingested in large amounts, and cause life-threatening lung injury.

Chronic effects: Repeated or prolonged skin exposure may result in drying, cracking and defatting of the skin (dermatitis).

Conditions aggravated by exposure: May aggravate pre-existing eye, skin and respiratory disorders.

Carcinogenic status: See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards: For further information, see TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects: See ECOLOGICAL INFORMATION (Section 12).

SECTION 4 — FIRST AID MEASURES

Inhalation: Immediately remove person to fresh air. If breathing has stopped, begin artificial respiration. Obtain medical attention.

Skin contact: Flush skin thoroughly with running water, while removing contaminated clothing. Obtain medical attention if irritation persists. Launder clothing before reuse.

Eye contact: Immediately flush eyes with running water for a minimum of 20 minutes. Obtain medical attention.

Ingestion: Do not induce vomiting! Obtain medical attention immediately. Never give anything by mouth to an unconscious or convulsing person.

Note to Physicians: Treat symptomatically. This product may act as a CNS depressant.

SECTION 5 — FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: Flammable aerosol. Closed containers are contained under pressure and will explode if exposed to excess heat or flame. Vapors may be heavier than air and can collect in low-lying areas. The vapors may travel to a distant source of ignition and flashback.

Flammability classification (OSHA 29 CFR 1910.1200): Flammable aerosol.

Flash point (Method): N/Av **Auto-ignition temperature:** N/Av

Lower flammable limit (% by vol.): 1.5 (Acetone) **Upper flammable limit (% by vol.):** 13.0 (Acetone)

Explosion data: *Sensitivity to mechanical impact / static discharge:* May be sensitive to static discharge.

Oxidizing properties: None known.

Suitable extinguishing media: Use foam, carbon dioxide, dry chemical or water spray.

Special fire-fighting procedures/equipment: Do not enter fire area without proper protection. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece. Shield personnel to protect from venting, rupturing or bursting cans. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment exposed to heat and flame.

Hazardous combustion products: Carbon oxides, hydrogen fluoride, hydrogen chloride and other irritating fumes and smoke.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions: Ensure spilled product does not enter drains, sewers, waterways or confined spaces.

Spill response/Cleanup: Eliminate all sources of heat, sparks and flame. Increase ventilation in area of release to prevent the build-up of a flammable / explosive atmosphere. Stop leak if you can do so without risk. Contain and absorb any spilled liquid concentrate with inert, non-combustible absorbent material, such as vermiculite. Then place absorbent material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Prohibited materials: Do not use combustible absorbents, such as sawdust.

Special spill response procedures: If a spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).
EPA/CERCLA Reportable quantity (RQ): Acetone (5000 lbs.)

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: This material is an extremely flammable, harmful aerosol. Wear protective equipment during handling. Use in a well ventilated area. Stand upwind of all opening and spraying operations. Do not use near sources of heat, flame, sparks, or ignition sources. Do not puncture or incinerate containers. Avoid generating high concentrations of vapours or mists. Avoid contact with eyes, skin or clothing. Keep container closed when not in use. Wash hands before eating, drinking, smoking or use of toilet facilities. Launder contaminated clothing before reuse.

Storage requirements: Store in a cool (below 120 F), dry, well-ventilated area away from sources of heat, ignition and sunlight. Keep away from incompatible materials (see Section 10). Inspect containers periodically for damage or leaks. No smoking in the area. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel.

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Use adequate ventilation to maintain air contaminants below exposure limits.

Respiratory protection: Respiratory protection is required if the airborne concentration exceeds exposure limits. When concentrations exceed the exposure limits specified, use NIOSH/MSHA-approved air-purifying respirators. Advice should be sought from respiratory protection specialists.

Skin protection and other protective equipment: Protective gloves impervious to the material must be worn during use. Confirmation of what type of material is most suitable for the intended application, should be obtained from glove suppliers. Additional impervious protective clothing is recommended to prevent skin contact. An eyewash station and safety shower should be made available in the immediate working area.

Eye / face protection: Use chemical splash goggles. Contact lenses should not be worn.

General hygiene considerations: Avoid breathing vapors or mists. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when working. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

Permissible exposure levels: For individual ingredient exposure levels, see Section 2.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical state, odor and appearance: Clear, colorless, aerosolized liquid. Acetone-like odor.

Specific gravity: 0.74 – 0.76

Solubility in water: Partially soluble. **Volatiles (% by weight):** 100%

Vapor pressure: 36.3 – 42.1 psi @ 68 °F. **Vapor density (Air = 1):** N/Av

Boiling point: N/Av **Freezing point:** N/Av

Evaporation rate (n-Butyl acetate = 1): N/Av **pH:** N/Av

SECTION 10 — REACTIVITY AND STABILITY DATA

Stability and reactivity: Stable under the recommended storage and handling conditions. May generate Carbon monoxide on standing in direct sunlight, which could increase pressure inside the can.

Hazardous polymerization: Will not occur.

Conditions to avoid: Heat, open flame, other sources of ignition and direct sunlight.

Materials to avoid (incompatibles): Strong oxidizers (e.g. Chlorine, Peroxides, etc.), reducing agents (e.g. metal hydrides), bases (e.g. Sodium hydroxide), strong acids (e.g. Sulfuric acid).

Hazardous decomposition products: None known. Refer to 'Hazardous Combustion products', Section 5.

SECTION 11 — TOXICOLOGICAL INFORMATION

Toxicological data: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

Ingredients	LC ₅₀ (4hr) inh, rat	LD ₅₀ (mg/kg)	
		oral, rat	dermal, rabbit
Acetone	71,000 mg/m ³	5800	>16,000
Isopropanol	17,000 ppm	4720	12,890
Butane	658,000 mg/m ³	N/Av	N/Av

Carcinogenicity: None of the ingredients listed are classified by IARC, ACGIH, NTP or OSHA as carcinogenic.

Reproductive effects, Teratogenicity, Mutagenicity: None known.

Sensitization to material: None known.

Other important hazards: CNS depression may result from exposure.

Synergistic materials: Not available.

SECTION 12 — ECOLOGICAL INFORMATION

Ecotoxicological information: The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. Do not discharge product unmonitored into the environment.

Chemical fate information: There is no data available on the product itself.

SECTION 13 — DISPOSAL CONSIDERATIONS

Handling for disposal: Empty containers may contain product residue or vapors. Do not puncture or incinerate empty containers. Handle according to recommendations listed in Section 7.

Methods of disposal: Dispose in accordance with all applicable federal, state, provincial and/or local regulations. Contact your local, state, provincial and/or federal environmental agency for specific rules.

RCRA: If this product, as supplied, becomes a waste, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. Under the RCRA, it is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 — TRANSPORTATION INFORMATION

US 49 CFR information:

Proper Shipping Name: Aerosols
 Hazard Class - Primary: 2.1
 Identification No.: UN1950
 Packing Group: Not applicable
 Label Codes: 2.1
 RQ LBS: 5000.
 RQ Components: Acetone.
 Marine Pollutant: None.

Special Transportation Notes: For shipments by ground within the United States, the Limited Quantity or Consumer commodity exceptions may apply. Under the US 49 CFR, refer to Sections 173.306 and 173.307 for additional exception requirements.

SECTION 15 — REGULATORY INFORMATION

US Federal Information:

TSCA information: All ingredients are listed on the TSCA inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): Acetone (5000 lbs.).

SARA TITLE III:

Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present.

Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute); Delayed (Chronic); Fire Hazard; Pressure Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds for extremely hazardous substances are 500 pounds or the individual chemical's threshold planning quantity (TPQ), whichever is lower; and 10,000 pounds for all other hazardous chemicals.

Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material may be subject to SARA notification requirements, since it contains Isopropanol, a Toxic Chemical constituent above its *de minimus* concentration.

US State Right to Know Laws:

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

New Jersey Labeling Requirements: This product contains the following substances that may be required to be disclosed on product labeling:

Chemical Name	CAS #	% (weight)	New Jersey Hazardous Substance
Acetone	67-64-1	25 - 50	Yes
Isopropanol	67-63-0	25 - 50	Yes
Butane	106-97-8	25 - 50	Yes

International Information:

Canadian WHMIS Classification: Class A (Compressed gas); Class B5 (Flammable aerosols); Class D2B (Materials Causing Other Toxic Effects, Toxic Material).

Canadian CEPA information: All ingredients are present on the DSL.

SECTION 16 — OTHER INFORMATION

HMI-ES Rating:

0 - Insignificant 1 - Slight 2 - Moderate 3 - High 4 - Extreme * - Chronic Hazard

Health: *2 Flammability: 4 Reactivity: 1

Legend: ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstract Services

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980

CFR: Code of Federal Regulations

DOT: Department of Transportation

DSL: Domestic Substances List

EPA: Environmental Protection Agency

HSDB: Hazardous Substances Data Bank

IARC: International Agency for Research on Cancer

N/Ap: not applicable

N/Av: not available

NIOSH: National Institute of Occupational Safety and Health

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

RCRA: Resource Conservation and Recovery Act

SARA: Superfund Amendments & Reauthorization Act

TLV: Threshold Limit Values

TSCA: Toxic Substance Control Act

WHMIS: Workplace Hazardous Materials Information System

References:

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2006.
2. International Agency for Research on Cancer Monographs, 2006.
3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2006 (Chempendium, HSDB and RTECs).
4. US EPA Title III List of Lists – January 27, 2005 version.
5. California Proposition 65 List – September 29, 2006 version.

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