Safety Data Sheet
acc. to OSHA HCS

Printing date 05/05/2025 Reviewed on 05/05/2025

1 Identification

· **Product identifier**

· **Trade name: ALUMINATI**

· **Article number:** 209155 DK

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
DIRT KILLER PRESSURE WASHERS, INC.
823 HAMMONDS FERRY ROAD
LINTHICUM HEIGHTS, MD 21090

· **Information department:** Product Safety Department
· **Emergency telephone number:** ChemTel Inc. (800) 255-3924 Intl. +01 (813) 248-0585

2 Hazard(s) identification

· **Classification of the substance or mixture**

GHS06 Skull and crossbones

Acute Toxicity - Oral 3	H301 Toxic if swallowed.
Acute Toxicity - Dermal 2	H310 Fatal in contact with skin.

GHS05 Corrosion

Skin Corrosion 1A	H314 Causes severe skin burns and eye damage.
Eye Damage 1	H318 Causes serious eye damage.

GHS07

Acute Toxicity - Inhalation 4 H332 Harmful if inhaled.

· **Additional information:**
This product contains Hydrofluoric Acid (HF). HF is very toxic and corrosive. Exposures require very specific first aid treatment in order to neutralize the fluoride ion. Failure to properly treat a HF exposure can result in serious health effects up to and including death.

· **Label elements**
· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS05

GHS06

· **Signal word** Danger

· **Hazard-determining components of labeling:**
hydrofluoric acid
phosphoric acid 75%

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· **Hazard statements**
Toxic if swallowed.
Fatal in contact with skin.
Harmful if inhaled.
Causes severe skin burns and eye damage.
· **Precautionary statements**
P301+P310 If swallowed: Immediately call a poison center/doctor.
P321 Specific treatment (see on this label).
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**
Health = 3
Fire = 0
Reactivity = 0
· **HMIS-ratings (scale 0 - 4)**
Health = 3
Fire = 0
Reactivity = 0
· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**		
7664-38-2	phosphoric acid 75%	>2.5-≤10%
7664-39-3	hydrofluoric acid	>2.5-≤10%

4 First-aid measures

· **Description of first aid measures**
· **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
In case of irregular breathing or respiratory arrest provide artificial respiration.
· **After inhalation:**
Delayed reactions up to and including fatal pulmonary edema to inhaled concentrations of HF may not be apparent for hours following initial exposure.
Use a respiration bag or breathing device.
Do not use mouth to mouth or mouth to nose resuscitation.

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Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**
Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.
Rub in Ca-gluconate solution or Ca-gluconate gel immediately.
Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:**
Irrigate open eyelids with 500-1000cc's of a 1% calcium gluconate in saline solution.
Call a doctor immediately.
Protect unharmed eye.
Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**
Seek immediate medical attentiion with emphasis on hydrofluoric acid exposure.
A person vomiting while lying on their back should be turned onto their side.
Do not induce vomiting; immediately call for medical help.
Drink copious amounts of water and provide fresh air. Immediately call a doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed**
Latent skin burns with delayed onset (up to 8 hours) can occur at lower concentrations (below 2%) exposure to this product. Skin burns start with an itching sensation and proceed to necrosis of effected tissue.
Corrosive and extremely irritating to all tissues.
Gastric or intestinal disorders
Breathing difficulty

· **Danger**
Danger of hyperglycemia.
Danger of gastric perforation.
Danger of pulmonary edema.

· **Indication of any immediate medical attention and special treatment needed**
If blue colouring appears (lips, ear-lobes, finger-nails), give oxygen treatment as quickly as possible.
Later observation for pneumonia and pulmonary edema.
Medical supervision for at least 48 hours.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**
Limestone powder
Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
Hydrogen fluoride (HF)
During heating or in case of fire poisonous gases are produced.

· **Advice for firefighters**
Product is not flammable however due to the possible evolution of toxic gases especially HF fight surrounding fires wearing full SCBA and turnout gear from the uopwind side of the fire. Avoid breathing fumes, vapors and gases from this product during fire situations.

· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
Mouth respiratory protective device.

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:** Dilute with plenty of water.
· **Methods and material for containment and cleaning up:**
Neutralize spills with lime or limestone powder. Ventilate effected area.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Avoid splashes or spray in enclosed areas.
When diluting, always stir the product into standing water, not water to product.
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· **Information about protection against explosions and fires:** Keep respiratory protective device available.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Unsuitable material for receptacle: glass or ceramic.
Unsuitable material for receptacle: steel.
Use receptacles with fluoroplastic lining.
· **Information about storage in one common storage facility:**
Store away from metals.
Store away from foodstuffs.
· **Further information about storage conditions:**
Store under lock and key and out of the reach of children.
Protect from contamination.
Store receptacle in a well ventilated area.
Keep receptacle tightly sealed.
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see section 7.

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· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
7664-38-2 phosphoric acid 75%	
PEL	Long-term value: 1 mg/m³
REL	Short-term value: 3 mg/m³ Long-term value: 1 mg/m³
TLV	Short-term value: 3 mg/m³ Long-term value: 1 mg/m³
7664-39-3 hydrofluoric acid	
PEL	Long-term value: 1* mg/m³, 3 ppm as F, *sulfuric acid
REL	Long-term value: 2.5 mg/m³, 3 ppm Ceiling limit value: 5* mg/m³, 6* ppm *15-min, as F
TLV	Long-term value: 0.5 ppm Ceiling limit value: 2 ppm as F; Skin; BEI

· **Ingredients with biological limit values:**	
7664-39-3 hydrofluoric acid	
BEI	3 mg/g creatinine Medium: urine Time: prior to shift Parameter: Flourides (background) 10 mg/g creatinine Medium: urine Time: end of shift Parameter: Flourides (background)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
· **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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· **Material of gloves**
Fluorocarbon rubber (Viton)
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **For the permanent contact gloves made of the following materials are suitable:** Fluorocarbon rubber (Viton)
· **Not suitable are gloves made of the following materials:**
Plastic gloves
Butyl rubber, BR
PVA gloves
PVC gloves
Nitrile rubber, NBR
· **Eye protection:**
Face protection

Tightly sealed goggles

· **Body protection:**
Boots
Acid resistant protective clothing
Full head, face and neck protection
Apron

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Liquid
Color:	Clear
· **Odor:**	Acrid
· **Odor threshold:**	Not determined.
· **pH-value at 20 °C (68 °F):**	<1
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	<100 °C (<212 °F)
· **Flash point:**	Not applicable.
· **Flammability (solid, gaseous):**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **Ignition temperature:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.

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Upper:	Not determined.
· **Vapor pressure at 20 °C (68 °F):**	40 hPa (30 mm Hg)
· **Density:**	Not determined.
· **Relative density**	Not determined.
· **Vapor density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Solvent content:**	
Water:	88.7 %
VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability** Stable
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions**
Attacks materials containing glass and silicate.
Reacts with strong oxidizing agents.
Reacts with alkali (lyes).
Reacts with metals forming hydrogen.
Develops toxic gases / fumes.
Reacts with light alloys to form hydrogen.
Reacts with various metals.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** Strong alkalies, Strong oxidizers, Most metals, Cyanides, Sulfides, Glass and Ceramics.
· **Hazardous decomposition products:**
Fluorophosgene on contact with naked flame or red hot objects.
Hydrocarbons
Carbon monoxide and carbon dioxide
Hydrogen fluoride

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** Strong caustic effect on skin and mucous membranes.
· **on the eye:**
Strong caustic effect.
Strong irritant with the danger of severe eye injury.

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· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Toxic
Harmful
Corrosive
Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.

· **NTP (National Toxicology Program)**
no ingredient above de minimis level is listed

· **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Dilute concentrate with water and neutralize afterwards with suitable alkali material (sodium hydroxide solution, lime). The formed neutral salts are relatively environment-friendly.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:**
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

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· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**
· **DOT, IMDG, IATA** UN3264

· **UN proper shipping name**
· **DOT** Corrosive liquid, acidic, inorganic, n.o.s. (Hydrofluoric acid)
· **IMDG, IATA** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROFLUORIC ACID)

· **Transport hazard class(es)**

· **DOT**

· **Class** 8 Corrosive substances
· **Label** 8

· **IMDG, IATA**

· **Class** 8 Corrosive substances
· **Label** 8

· **Packing group**
· **DOT, IMDG, IATA** I

· **Environmental hazards:**
· **Marine pollutant:** No

· **Special precautions for user**
· **Hazard identification number (Kemler code):** 86
· **EMS Number:** F-A,S-B
· **Segregation groups** (SGG1) Acids
· **Stowage Category** B
· **Stowage Code** SW2 Clear of living quarters.
· **Segregation Code** SG36 Stow "separated from" SGG18-alkalis.
SG49 Stow "separated from" SGG6-cyanides

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **DOT**
· **Quantity limitations** On passenger aircraft/rail: 0.5 L
On cargo aircraft only: 2.5 L

· **IMDG**
· **Limited quantities (LQ)** 0

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· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
· **UN "Model Regulation":**	UN 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROFLUORIC ACID), 8 (6.1), II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
· **Sara**

· **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

7664-38-2	phosphoric acid 75%

· **TSCA (Toxic Substances Control Act):**

7732-18-5	water, distilled, conductivity or of similar purity	ACTIVE
7664-38-2	phosphoric acid 75%	ACTIVE
66455-15-0	C10-12 6 Mole Linear Alcohol Ethoxylate	ACTIVE

· **Hazardous Air Pollutants**
None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**
None of the substances are listed

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males.**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

· **TLV (Threshold Limit Value)**
None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS05 GHS06

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· **Signal word** Danger

· **Hazard-determining components of labeling:**
hydrofluoric acid
phosphoric acid 75%
· **Hazard statements**
Toxic if swallowed.
Fatal in contact with skin.
Harmful if inhaled.
Causes severe skin burns and eye damage.
· **Precautionary statements**

P301+P310	If swallowed: Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Contact:** Product Safety Department
· **Date of preparation / last revision**
05/05/2025
01/15/2014
· **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Acute Toxicity - Oral 3: Acute toxicity – Category 3
Acute Toxicity - Dermal 2: Acute toxicity – Category 2
Acute Toxicity - Inhalation 4: Acute toxicity – Category 4
Skin Corrosion 1A: Skin corrosion/irritation – Category 1A
Eye Damage 1: Serious eye damage/eye irritation – Category 1