SAFETY DATA SHEET

Issue Date 03/14/24 **Revision Date** 10/15/24 Version 1.1

SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

Product Name:	**Dinger**™ Rust Stain Remover
Company:	**Watts Removal Products** 9956 SE Ankeny Street, Portland, OR 97216
Manufacturer's Product ID:	WRP-DNG-00 (Includes all sizes of Dinger)
24-Hour Emergency Telephone Number:	USA 1-800-633-8253 (International 1-801-629-0667)
(PERS) Professonal Emergency Resource Services:	Contract Number: 8400
Phone Number:	(971) 293-2011
Product Form:	Clear liquid
Substance Name:	Ammonium Hydrogen Difluoride, Phosphoric Acid, Trade Secret ingredients (<10%)
CAS No.:	1341-49-7, 7664-38-3, 7732-18-5, CBI (Trade secret)
Formula:	Proprietary mixture
Classification of the substance or mixture:	Corrosive to metals, Category 1 Acute toxicity, Category 2, Oral Acute toxicity, Category 2, Inhalation Acute Toxicity, Category 1 Dermal skin corrosion, Categoy 1A Serious eye damage, Category 1
Intended Use:	Concrete cleaner and rust stain remover

SECTION 2) HAZARDS INFORMATION

Classification:
Corrosive to metals - Category 1
Acute toxicity - Category 2
Oral Acute toxicity - Category 2
Inhalation Acute toxicity - Category 1
Dermal Skin corrosion - Category 1A
Serious eye damage – Category 1

Pictograms:

Signal Word (GHS-US): Danger

Hazardous Statement(s)
H301 + H331: Toxic if swallowed or inhaled
H290: May be corrosive to metals

Precautionary Statements	
General:	H318: Causes serious eye damage. P234: Keep only in original container. P260: Do not breathe mist, spray, vapors. P264: Wash exposed skin thoroughly after handling.
Prevention:	P280: Wear eye protection, face protection, protective clothing, protective gloves P310 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Response:	P303 + P316 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. P363: Wash contaminated clothing before reuse. P370 + P378: In case of fire: Use carbon dioxide (CO_2), powder, alcohol-resistant foam for extinction. P390: Absorb spillage to prevent material damage.
Storage:	P405: Store locked up P406: Store in corrosive resistant container with a resistant inner liner
Disposal:	P501: Dispose of contents/container to comply with local, state and federal regulations.
Other Hazards:	H402: Harmful to aquatic life
Unknown Acute Toxicity (GHS US):	No data available

SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS

Substance type: Multi-constituent

CAS	Chemical Name	% By Weight	Classification
1341-49-7	Ammonium Hydrogen Difluoride	1-5%	**GHS-US Classification** Ox. Liq. 3, H272 Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318
7664-38-2	Phosphoric Acid	7-10%	Ox. Liq. 3, H272 Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318
7732-18-5	Water	50-60%	N/A
Confidential	Trade Secret	<25%	N/A

SECTION 4) FIRST-AID MEASURES

Description:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration / resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service

Inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

Skin Contact:

Wash immediately with lots of water (15 minutes)/shower. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

Eye Contact:

Rinse immediately with plenty of water for 15 minutes. Do not apply neutralizing agents. Cover eyes aseptically. Take victim to an ophthalmologist.

Ingestion:

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Give milk to drink. Do not induce vomiting. Do not give activated charcoal. Do not give chemical antidote. Immediately consult a doctor/medical service. Call Poison Information Center. Take the container/vomit to the doctor/hospital. Ingestion of large quantities: immediately to hospital.

Symptoms and Effects:

Symptoms/injuries after inhalation:
Irritation of the respiratory tract. Dry/sore throat. Corrosion of the upper respiratory tract. Coughing. FOLLOWING SYMPTOMS MAY APPEAR LATER: Respiratory difficulties. Possible inflammation of the respiratory tract. Risk of lung edema. Blue/grey discoloration of the skin.

Symptoms/injuries after skin contact:
Yellow skin. May stain the skin. Caustic burns/corrosion of the skin. Slow-healing wounds.

Symptoms/injuries after eye contact:
Corrosion of the eye tissue. Permanent eye damage.

Symptoms/injuries after ingestion:
Nausea. Vomiting. Abdominal pain. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Shock.

Chronic symptoms:
ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Affection/discoloration of the teeth. Risk of pneumonia

Indication of any immediate medical attention and special treatment needed.
Obtain medical assistance.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

EXTINGUISHING MEDIA FOR SURROUNDING FIRES: All extinguishing media allowed.

Unsuitable Extinguishing Media:

No unsuitable extinguishing media known.

Special hazards arising from the substance or mixture

Fire Hazard:

DIRECT FIRE HAZARD. Noncombustible. INDIRECT FIRE HAZARD. Promotes combustion. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion Hazard

Reactivity:

INDIRECT EXPLOSION HAZARD. Reactions with explosion hazards: see "Reactivity Hazard".
Reactivivty : Concentrated solution reacts exothermically with water (moisture). Decomposes on exposure to temperature rise: release of toxic and corrosive gases/vapors (nitrous vapors). Violent to explosive reaction with many compounds e.g.: with (strong) reducers, with (some) bases, with organic material and with combustible materials with risk of spontaneous ignition. Reacts violently with (some) metals. Decomposes slowly on exposure to light: release of toxic and corrosive gases/vapors (nitrous vapors). Violent to explosive reaction with (some) metal powders: release of highly flammable gases/vapors (hydrogen).

Advice for Firefighters:

Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

SECTION 6) ACCIDENTAL RELEASE MEASURES

For non-emergency personnel:

Protective equipment: Gas-tight suit. Corrosion-proof suit.

Emergency procedures: Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Corrosion-proof appliances. Keep containers closed. Wash contaminated clothes.

Emergency responders:

Protective equipment: Equip cleanup crew with proper protection. Avoid breathing mist, Vapors, spray.

Emergency procedures: Stop leak if safe to do so. Ventilate area.

Environmental precautions:

Prevent soil and water pollution. Prevent spreading in sewers.

Methods and Materials for containment and cleaning up:

For containment: Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Dilute toxic gases/vapors with water spray. Take account of toxic/corrosive precipitation water. Hazardous reaction: measure explosive gas-air mixture. Reaction: dilute combustible gas/vapor with water curtain.

Methods for cleaning up: Take up liquid spill into inert absorbent material, e.g.: sand, earth, vermiculite or powdered limestone. Do not take up in combustible material such as: saw dust. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Spill must not return in its original container. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

Reference to other sections

No additional information available.

SECTION 7) HANDLING AND STORAGE

Precautions for safe handling:

Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing.

Keep the substance free from contamination. Use corrosion-proof equipment. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Never dilute by pouring water to the acid. Always add the acid to the water. Keep away from naked flames/heat. Observe very strict hygiene - avoid contact. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Hygiene measures:

Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

Conditions for safe storage:

Heat and ignition sources: KEEP SUBSTANCE AWAY FROM: heat sources.

Prohibitions on mixed storage: KEEP SUBSTANCE AWAY FROM: combustible materials. reducing agents. (strong) bases.cellulosic materials. organic materials. metal powders. water/moisture

Storage area: Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area. Ventilation at floor level. Fireproof storeroom. Keep locked up. Provide for a tub to collect spills. Aboveground. Keep only in the original container. Store only in a limited quantity. Meet the legal requirements.

Special rules on packaging: SPECIAL REQUIREMENTS: hermetical. dry. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packaging in solid containers.

Packaging materials: SUITABLE MATERIAL: stainless steel. aluminum. iron. glass. MATERIAL TO AVOID: synthetic material.

Specific end use(s): No additional information available

SECTION 8) EXPOSURE CONTROLS, PERSONAL PROTECTION

Control Parameters:

Estimated from constituent sources

USA ACGIH	ACGIH TWA (ppm)	2 ppm
USA ACGIH	ACGIH STEL (ppm)	4 ppm
USA OSHA	OSHA PEL (TWA) (mg/m3)	3 mg/m3
USA OSHA	OSHA PEL (TWA) (ppm)	6 ppm

Expore Controls:

Appropriate engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

Personal protective equipment: Protective goggles. Protective clothing. Face shield. Gloves. Combined gas/dust mask with filter type NO/P2.

Eye Protection:

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

Materials for protective clothing:

GIVE LESS RESISTANCE: polyethylene/ethylenevinylalcohol. GIVE POOR RESISTANCE: chloroprene rubber. Nitrile rubber. polyethylene. PVA. natural fibers.

Hand Protection:

Gloves.

Eye Protection:

Protective goggles.

Skin and body protection:	Head/Neck protection. Corrosion-proof clothing
Respirator Protection:	Gas mask with filter type B. Gas mask with filter type E. Gas mask with filter type NO. High vapor/gas concentration: self-contained respirator.

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State	Liquid
Appearance	Liquid
Molecular Mass	Not available
Color	Colorless-water white. On exposure to light may turn yellow.
Odor	Irritating/pungent odor. Asphyxiating odor
pH	6
pH Solution	6%
Relative evaporation rate (butylacetate=1)	No data available
Metling Point	No data available
Freezing Point	No data available
Boiling Point	83 - 122 °C
Flash Point	Not applicable
Self Ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid,gas)	No data available
Vapor Pressure	No data available
Relative Vapor Density at 20°C	No data available
Relative Density	1.66-1.7
Relative density of saturated gas/air misture	No data available
Density	1660 – 1700 kg/m3
Water solubility	Water: Complete
Viscosity, dynamic	2.3 mPa.s at 15 °C (59 °F)

Other information	
Saturation concentration	10 g/m3
VOC content	Not applicable
Other properties	Gas/vapor heavier than air at 20°C. Hygroscopic. Producing fumes/mist. Physical properties depending on the concentration. Substance has acid reaction.

SECTION 10) STABILITY AND REACTIVITY

Reactivity

	Concentrated solution reacts exothermically with water (moisture). Decomposes on exposure to temperature rise: release of toxic and corrosive gases/vapors (nitrous vapors), ammonia, hydrogen fluoride, and nitrogen oxides. Violent to explosive reaction with many compounds e.g.: with (strong) reducers, with (some) bases, with organic material and with combustible materials with risk of spontaneous ignition. Reacts violently with (some) metals. Decomposes slowly on exposure to light: release of toxic and corrosive gases/vapors (nitrous vapors). Violent to explosive reaction with (some) metal powders: release of highly flammable gases/vapors (hydrogen).
Chemical Stability	Unstable on exposure to light. Hygroscopic.
Possibility of hazardous reactions	May react violently with reducing agents.
Conditions to avoid	Direct sunlight. Incompatible materials.
Incompatible materials	Strong bases. Strong reducing agents. Organic compounds. Cyanides. Combustible materials. Aldehydes. Ammonia. Metals. Alcohols.
Hazardous decomposition products	Nitrogen oxides. oxygen.

SECTION 11) TOXICOLOGICAL INFORMATION

Information of toxicological effects	
Acute Toxicity:	Not classified
Skin corrosion/ irritation:	Causes severe skin burns and eye damage. Ph:3-4
Serious eye damage/ eye irritation:	Causes serious eye damage. Ph:3-4
Respiratory or skin sensitization:	Toxic on skin
Germ cell mutagenicity:	Not classified
Carcinogenicity:	

Not classified (Based on available, the classification criteria are not met)

Reproductive toxicity:

Not classified

Specific target organ toxicity (single exposure):

Not classified

Specific target organ toxicity (repeated exposure):

Not classified

Aspiration hazard:

Not classified

Symptoms/injuries after inhalation:

Irritation of the respiratory tract. Dry/sore throat. Corrosion of the upper respiratory tract. Coughing. FOLLOWING SYMPTOMS MAY APPEAR LATER: Respiratory difficulties. Possible inflammation of the respiratory tract. Risk of lung edema. Blue/grey discoloration of the skin.

Symptoms/injuries after skin contact:

White/Yellow skin. May stain the skin. Caustic burns/corrosion of the skin. Slow-healing wounds

Symptoms/injuries after eye contact:

Corrosion of the eye tissue. Permanent eye damage.

Symptoms/injuries after ingestion:

Nausea. Vomiting. Abdominal pain. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Shock.

Chronic symptoms:

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Affection/discoloration of the teeth. Risk of pneumonia

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

Ecology- general:

Classification concerning the environment: not applicable.

Ecology – water:

Mild water pollutant (surface water). Harmful to fishes. Harmful to invertebrates (Daphnia). May cause eutrophication. pH shift.

Ammonium Hydrogen Diflouride, ingredients (<10%) Phosphoric Acid, Water, Trade secret ingredients (<10%)

LC50 fishes 1	25 - 36 mg/l (96 h; Lepomis macrochirus; PURE SUBSTANCE)
EC50 Daphnia 1	180 mg/l (48 h; Daphnia magna; PURE SUBSTANCE)

LC50 fish 2	72 ppm (Gambusia affinis; PURE SUBSTANCE)
Threshold limit algae 1	> 19 mg/l (Algae; PURE SUBSTANCE)

Persistance and degradablility:

	Ammonium Hydrogen Diflouride, ingredients (<10%) Phosphoric Acid, Water, Trade secret ingredients (<10%)
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components of the mixture available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oyxgen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

Bioaccumulative potential:

	Ammonium Hydrogen Diflouride, ingredients (<10%) Phosphoric Acid, Water, Trade secret ingredients (<10%)
BCF fish 1	<= 1 (Pisces)
Log Pow	-2.3 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)
Bioaccumulative potential	Bioaccumulation: not applicable.

Mobility in soil:

No additional information available

Other adverse effects:

No additional information available

SECTION 13) DISPOSAL CONSIDERATIONS

Water treatment methods

Waste Disposal recommendations:

Remove waste in accordance with local and/or national regulations. Recycle/reuse. Remove for physico-chemical/biological treatment. Remove to an authorized dump (Class I). Treat using the best available techniques before discharge into drains or the aquatic environment.

Additional information:

LWCA (the Netherlands): KGA category 01. Hazardous waste according to Directive 2008/98/EC.

SECTION 14) TRANSPORT INFORMATION

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

UN-Number:

UN-No. (DOT) :	1760
DOT NA no. :	UN1760

UN proper shipping name

DOT Proper shipping name: : Corrosive Liquid, n.o.s.

Department of Transportation
(DOT) Hazard : 8 - Class 8 - Corrosive material 49 CFR 173.136 Classes
Hazard labels (DOT)

Packing group (DOT) : III - Low Danger

DOT Special Provisions

(49 CFR 172.102) : B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized.
B47 - Each tank may have a reclosing pressure relief device having a start-to-discharge pressure setting of 310 kPa (45 psig).
IP15 - For UN1760 rigid plastic IBCs and composite IBCs with a rigid plastic inner receptacle are authorized for two years from the date of IBC manufacture.
T8 - 4 178.274(d)(2) Normal..... Prohibited
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx) : **Can ship Limited Quantity per 49 CFR 173.156**

DOT Packaging Non Bulk (49 CFR 173.xxx) : 158

DOT Packaging Bulk (49 CFR 173.xxx) : 242

Additional Information

Other Information : No supplementary information available.

State during transport (ADR-RID) : As liquid.

Overland transport

Packing group (ADR) : III

Class (ADR) : 8- Corrosive liquid

Hazard identification number (Kemler No.) : 88
Classification code (ADR) : C1
Danger labels (ADR) : 8-Corrosive liquid

Orange plates PLACARD IDENTIFIER: 88/1760

Transport by sea

DOT Vessel Stowage Location : D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel
carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded.
DOT Vessel Stowage Other : 66 - Stow "separated from" flammable solids,74 - Stow "separated from" oxidizers,89 - - Stow
"separated from" radioactive materials
EmS-No. (1) : F-A
EmS-No. (2) : S-B

Air transport

DOT Quantity Limitations Passenger aircraft/rail: Forbidden (49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 30 L CFR 175.75)
Subsidiary risks (IATA)

SECTION 15) REGULATORY INFORMATION

Ammonium Biflouride, Phosphoric acid, Proprietary ingredients

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on SARA Section 313 (Specific toxic chemical listings)

Ammonium Biflouride, Phosphoric acid, Proprietary ingredients

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	1000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

International regulations Canada

Ammonium Biflouride, Phosphoric acid, Proprietary ingredients

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Class E - Corrosive Material

EU-Regualtions

No additional information available

Classification according to Regulation (EC) N0. 1272/2008 [CLP]

Corr. 1A H314
Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

C; R35
Full text of R-phrases: see section 16

National Regulations

Ammonium Biflouride, Phosphoric acid, Proprietary ingredients

Listed on the Canadian Ingredient Disclosure List

US State Regulations

Ammonium Biflouride, Phosphoric acid, Proprietary ingredients

State or local regulations	U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List

SECTION 16) OTHER INFORMATION

GENERAL:

Urban Restoration Group US Inc. urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. It is the Buyer's/User's responsibility to ensure that his activities comply with all Federal, State, Provincial or Local laws. The information presented here pertains only to the product as shipped. The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. NO warranty or guarantee is expressed or implied regarding the accuracy of this data or the results to be obtained from the use of the product.

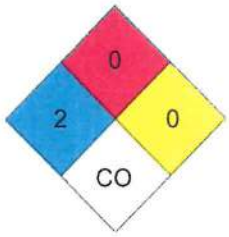
Revision Date 09/09/24

Full text of H-phrases: see section 16:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
H272	May intensify fire.
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

HMIS:

NFPA health hazard :	4 - Moderate
NFPA fire hazard :	0 - Materials that will not burn.
NFPA reactivity :	0 - Normally stable, even under fire exposure conditions, and are not reactive with water
NFPA specific hazard :	COR - This denotes chemically reactive corrosive chemical.



HMIS III Rating

Health	2 Moderate – Can cause serious or permanent injury
Flammability :	0 Minimal Hazard
Physical :	0 Minimal Hazard
Personal Protection :	H

DISCLAIMER:

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