

Wonder Gel Stainless Steel Pickling Gel

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
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Version: 4.0



SECTION 1: Identification

1.1. Identification
Product form : Mixture
Product name : Wonder Gel Stainless Steel Pickling Gel
Product code : WG

1.2. Recommended use and restrictions on use

Recommended use : Industrial use
Restrictions on use : None known

1.3. Supplier

Bradford Durell Corp
P.O. Box PO Box 1184
Yonkers, NY 10708
T (714) 986-0699
www.bradforddurell.com - www.DERUSTIT.COM

1.4. Emergency telephone number

Emergency number : Chemtrec 800-424-9300/ 703-527-3887 CCN 3103 ; Chemtrec Mexico 1-800-681-9531

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Ox. Liq. 3
Acute Tox. 3 (Oral)
H301 - Toxic if swallowed
H310 - Fatal in contact with skin
H314 - Causes severe skin burns and eye damage
H331 - Toxic if inhaled
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

Full text of hazard classes and H-statements : see section 16

2.2. GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

Hazard statements (GHS US)

Precautionary statements (GHS US)

Danger
H301+H331 - Toxic if swallowed or if inhaled
H310 - Fatal in contact with skin
H314 - Causes severe skin burns and eye damage
P201 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P221 - Take any precaution to avoid mixing with combustible materials
P260 - Do not breathe dust, fume, vapors.
P261 - Avoid breathing dust, fume, vapors.
P262 - Do not get in eyes, on skin, or on clothing.
P271 - Do not eat, drink or smoke when using this product.
P273 - Do not release into the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 - If swallowed: Immediately call a POISON CENTER or doctor if you feel unwell.
P303+P361+P353 - If in contact with skin or hair: Wash thoroughly with plenty of water.
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

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P310 - Immediately call a POISON CENTER
P311 - Call a POISON CENTER
P330 - Rinse mouth.
P361 - Take off immediately all contaminated clothing.
P370+P378 - In case of fire: Use ABC-powder to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None.

2.4. Environmental hazards

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Ingredients

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Calcium nitrate	(CAS-No.) 10124-37-5	15 - 40	Acute Tox. 4 (Oral), H302
Nitric acid	(CAS-No.) 7697-37-2	10 - 30	Ox. Liq. 2, H272 Skin Corr. 1A, H314 Env. Dam. 1, H318
Ammonium bifluoride	(CAS-No.) 1341-49-7	10 - 20	Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314 Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Oral), H310 Acute Tox. 2 (Inhalation), H330 Skin Corr. 1A, H314
Hydrofluoric acid	(CAS-No.) 7664-39-3	1 - 5	

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first-aid measures

First-aid measures general

Call a physician immediately. If you feel unwell, seek medical advice (show the label where possible).
Remove person to fresh air and keep comfortable for breathing. Call a doctor.
Remove/Take off immediately all contaminated clothing. Call a physician immediately. Immediately remove contaminated clothing or footwear. Seek medical attention if burns develop. Wash skin with plenty of water.
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. Consult an ophthalmologist if irritation persists.
Rinse mouth. Call a physician immediately. Do not induce vomiting.

First-aid measures after ingestion

Most important symptoms and effects (acute and delayed)
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

First-aid measures after eye contact

First-aid measures after ingestion

First-aid measures after eye contact

First-aid measures after ingestion

First-aid measures after eye contact

First-aid measures after ingestion

First-aid measures after eye contact

First-aid measures after ingestion

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8.3. Special protective equipment and precautions for fire-fighters
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may handle. Do not breathe dust/fume/gas/mist/vapour/spray.
Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Notify authorities if product enters sewers or public waters. In case of large spillages: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Shovel or sweep up and put in a closed container for disposal. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal.
Dispose of materials or solid residues at an authorized site.

Other information

6.4. References to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapour/spray.
Wash contaminated clothing before reuse. Separate work clothes from street clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Hygiene measures

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Incompatible materials : Combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Calcium nitrate (10124-37-5)	
Not applicable	
Nitric acid (7697-37-2)	
ACGIH	ACGIH TWA (ppm)
ACGIH	ACGIH STEL (ppm)
OSHA	OSHA PEL (TWA) (mg/m³)
OSHA	OSHA PEL (TWA) (ppm)
Hydrofluoric acid (7664-39-3)	
ACGIH	ACGIH TWA (ppm)
ACGIH	ACGIH Ceiling (ppm)
OSHA	OSHA PEL (TWA) (ppm)
Ammonium bifluoride (1341-46-7)	
Not applicable	

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8.2. Appropriate engineering controls
Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Chemically resistant protective gloves

Eye protection:

Chemical goggles or safety glasses. Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : green
Odor : acidic
Odor threshold : No data available
pH : 2.68
Melting point : Not applicable
Freezing point : No data available
Boiling point : -212 °F
Flash point : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Not applicable.
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available
Relative density : 1.2
Solubility : No data available
Log Pow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosion limits : No data available
Explosive properties : No data available
Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

May intensify fire, oxidizer.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.A. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.B. Incompatible materials

Combustible materials.

10.C. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. On combustion, forms: carbon oxides (CO and CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Fatal in contact with skin. Inhalation: dust, mist: Toxic if inhaled.

Wonder Gel Stainless Steel Pickling Gel	
ATE US (oral)	80.04 mg/kg body weight
ATE US (dermal)	100 mg/kg body weight
ATE US (dust, mist)	1 mg/l/4h
Calcium nitrate (10124-37-5)	
LD50 oral rat	302 mg/kg
ATE US (oral)	302 mg/kg body weight
Nitric acid (7697-37-2)	
LC50 inhalation rat (ppm)	2500 ppm/1h
ATE US (gases)	1250 ppm/4h
Hydrofluoric acid (7664-39-3)	
LC50 inhalation rat (mg/l)	0.79 mg/l (Exposure time: 1 h)
ATE US (oral)	5 mg/kg body weight
ATE US (dermal)	5 mg/kg body weight
ATE US (vapors)	0.79 mg/l/4h
ATE US (dust, mist)	0.05 mg/l/4h
Ammonium bifluoride (1341-49-7)	
LD50 oral rat	130 mg/kg
ATE US (oral)	130 mg/kg body weight

Skin corrosion/irritation : Causes severe skin burns and eye damage.

pH: 2.66

Serious eye damage/irritation : Causes serious eye damage.

pH: 2.66

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

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/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralization, the product may represent a danger to aquatic organisms.

Calcium nitrate (10124-37-5)	
LC50 fish 1	10000 mg/l (Exposure time: 96 h - Species: <i>Lepomis macrochirus</i> [fathead])
Hydrofluoric acid (7664-39-3)	
EC50 Daphnia 1	270 mg/l (Exposure time: 48 h - Species: <i>Daphnia galeata</i>)

12.2. Persistence and degradability

Wonder Gel Stainless Steel Pickling Gel	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Wonder Gel Stainless Steel Pickling Gel	
Bioaccumulative potential	Not established.
Nitric acid (7697-37-2)	
Log Pow	-2.3 (at 25 °C)
Hydrofluoric acid (7664-39-3)	
BCF fish 1	(no bioaccumulation)
Log Pow	-1.4
Ammonium bifluoride (1341-49-7)	
BCF fish 1	(completely dissociated in water)

12.4. Mobility in soil

Wonder Gel Stainless Steel Pickling Gel	
Ecology - soil	Not established.

12.5. Other adverse effects

Effect on global warming : Not established

Hydrofluoric acid (7664-39-3)	
1990 Hazardous Air Pollutant (Clean Air Act)	Yes

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container in accordance with licensed collector's sorting instructions.

: Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description

UN-No. (DOT)

Proper Shipping Name (DOT)

Class (DOT)

Packing group (DOT)

: UN3264 Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid, hydrofluoric acid), 8, II

: UN3264

: Corrosive liquid, acidic, inorganic, n.o.s.

: nitric acid, hydrofluoric acid

: 8 - Class 8 - Corrosive material 49 CFR 173.136

: II - Medium Danger

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Hazard labels (DOT)

: 8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.300) : 202
DOT Packaging Bulk (49 CFR 173.300) : 242
DOT Symbols : G - Identifies PSN requiring a technical name
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.
IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31H21). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T11 - 8 178.274(d)(2) Normal..... 178.275(d)(3)
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, if is the temperature in degrees Celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tr) 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.
TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
MAWP: : 154
DOT Packaging Exceptions (49 CFR 173.300) : 154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L
DOT Vessel Storage Location : B - (I) The material may be stowed "on deck" or "under deck" 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; and (II) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (K)(2)(i) of this section is exceeded.
DOT Vessel Storage Other : 40 - Stow "clear of living quarters"
Emergency Response Guide (ERG) Number : 154
Other information : No supplementary information available.

Transport by sea

Transport document description (IMDG) : UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid, hydrofluoric acid), 8, II
UN-No. (IMDG) : 3264
Proper Shipping Name (IMDG) : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Class (IMDG) : 8 - Corrosive substances
Packing group (IMDG) : II - substances presenting medium danger

Air transport

Transport document description (IATA) : UN 3264 Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid, hydrofluoric acid), 8, II
UN-No. (IATA) : 3264
Proper Shipping Name (IATA) : Corrosive liquid, acidic, inorganic, n.o.s.
Class (IATA) : 8 - Corrosives
Packing group (IATA) : II - Medium Danger

SECTION 15: Regulatory information

15.1 US Federal Regulations

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Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Nitric acid	CAS-No. 7697-37-2	10 - 30%
Hydrofluoric acid	CAS-No. 7664-39-3	1 - 5%
Calcium nitrate (10124-37-5)		
Listed on the United States TSCA (Toxic Substances Control Act) Inventory		
Nitric acid (7697-37-2)		
Listed on the United States TSCA (Toxic Substances Control Act) Inventory		
CERCLA RQ	1000 lb	
Section 302 EPCRA Reportable Quantity (RQ)	1000 lb	
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb	
Hydrofluoric acid (7664-39-3)		
Listed on the United States TSCA (Toxic Substances Control Act) Inventory		
CERCLA RQ	100 lb	
Section 302 EPCRA Reportable Quantity (RQ)	100 lb	
SARA Section 302 Threshold Planning Quantity (TPQ)	100 lb	
Ammonium bifluoride (1341-49-7)		
Listed on the United States TSCA (Toxic Substances Control Act) Inventory		
CERCLA RQ	100 lb	

15.2 International regulations

CANADA

Calcium nitrate (10124-37-5)	
Listed on the Canadian DSL (Domestic Substances List)	
Nitric acid (7697-37-2)	
Listed on the Canadian DSL (Domestic Substances List)	
Hydrofluoric acid (7664-39-3)	
Listed on the Canadian DSL (Domestic Substances List)	
Ammonium bifluoride (1341-49-7)	
Listed on the Canadian DSL (Domestic Substances List)	

EU Regulations

Calcium nitrate (10124-37-5)	
Listed on the EEC Inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
Nitric acid (7697-37-2)	
Listed on the EEC Inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
Hydrofluoric acid (7664-39-3)	
Listed on the EEC Inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	
Ammonium bifluoride (1341-49-7)	
Listed on the EEC Inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	

National regulations

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All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory	

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Calcium nitrate (10124-37-5)

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U.S. - New Jersey - Right to Know Hazardous Substance List

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