

1 Identification

- **Product identifier**
- **Trade name:** Liquid Alive® Enzyme Digestant, Stain Remover & Deodorizer
- **Article number:** 334
- **Application of the substance / the mixture** Enzyme Carpet Cleaner
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
ITW Pro Brands
805 East Old 56 Highway
Olathe, Kansas 66061
Phone: 1-800-224-4860
- **Emergency telephone number:** Infotrac Emergency Hotline: 1-800-535-5053

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS 04 gas cylinder

H280 Contains gas under pressure; may explode if heated.



GHS02 Flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.



GHS08 Health hazard

Resp. Sens. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Repr. 2	H361	Suspected of damaging fertility or the unborn child.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS04 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

Papain

- **Hazard statements**

H280 Contains gas under pressure; may explode if heated.

H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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H361 Suspected of damaging fertility or the unborn child.

- **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P251 Pressurized container: Do not pierce or burn, even after use.

P211 Do not spray on an open flame or other ignition source.

P261 Avoid breathing mist/vapours/spray.

P281 Use personal protective equipment as required.

P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.

P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**

Pressurized container: May burst if heated.

Contains Papain. May produce an allergic reaction.

- **Hazard description:**

- **WHMIS-symbols:**

A - Compressed gas

B5 - Flammable aerosol

D2A - Very toxic material causing other toxic effects



- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = *1

Fire = 3

Reactivity = 0

* - Indicates a long term health hazard from repeated or prolonged exposures.

- **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.

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· Dangerous components:

72-28-5	Isobutane ⚠ Flam. Gas 1, H220	2.5-10%
64742-89-8	Solvent naphtha (petroleum), light aliph. ⚠ Asp. Tox. 1, H304	2.5-10%
112-34-5	2-(2-butoxyethoxy)ethanol ⚠ Eye Irrit. 2, H319	≤ 2.5%
74-98-6	propane ⚠ Flam. Gas 1, H220 Press. Gas, H280	≤ 2.5%
67-63-0	propan-2-ol ⚠ Flam. Liq. 2, H225 ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	≤ 2.5%
68439-57-6	Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts ⚠ Eye Dam. 1, H318 ⚠ Skin Irrit. 2, H315	≤ 2.5%
97-99-4	tetrahydro-2-furylmethanol ⚠ Repr. 2, H361 ⚠ Eye Irrit. 2, H319 Flam. Liq. 4, H227	< 1%
9001-73-4	Papain ⚠ Resp. Sens. 1, H334 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	< 1%

· Dangerous Components (Alternative Classifications):

72-28-5	Isobutane ⚠ Flam. Gas 1, H220	2.5-10%
64742-89-8	Solvent naphtha (petroleum), light aliph. ⚠ Asp. Tox. 1, H304	2.5-10%
112-34-5	2-(2-butoxyethoxy)ethanol ⚠ Eye Irrit. 2, H319	≤ 2.5%
74-98-6	propane ⚠ Flam. Gas 1, H220 Press. Gas, H280	≤ 2.5%
67-63-0	propan-2-ol ⚠ Flam. Liq. 2, H225 ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	≤ 2.5%

4 First-aid measures

· Description of first aid measures**· General information:** Take affected persons out into the fresh air.**· After inhalation:**

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

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- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
In cases of frostbite, rinse with plenty of water. Do not remove clothing.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Unlikely route of exposure.
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed**
Asthma attacks
Headache
Breathing difficulty
Dizziness
Coughing
Frostbite
Nausea
Disorientation
- **Danger**
Suspected of damaging fertility or the unborn child.
Danger of impaired breathing.
- **Indication of any immediate medical attention and special treatment needed**
Treat frost-bitten areas appropriately.
Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.
In cases of irritation to the lungs, initial treatment with corticosteroid inhalants.
Treat skin and mucous membrane with antihistamine and corticoid preparations.
Contains Papain. May produce an allergic reaction.
If necessary oxygen respiration treatment.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
Danger of receptacles bursting because of high vapor pressure if heated.
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information**
Eliminate all ignition sources if safe to do so.
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
If aerosols are bursting, stay clear until safe. Aerosol containers can be projectiles when bursting.

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Cool endangered receptacles with water fog.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

If containers are leaking, use respiratory protective device against the effects of fumes/dust/aerosol.

Ensure adequate ventilation.

Keep away from ignition sources.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Allow to evaporate.

Absorb liquid components with liquid-binding material.

Ensure adequate ventilation.

Dispose contaminated material as waste according to item 13.

- **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

- **Precautions for safe handling**

Keep away from heat and direct sunlight.

Use only in well ventilated areas.

Pressurized container: Do not pierce or burn, even after use.

- **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Fumes can combine with air to form an explosive mixture.

Flammable gas-air mixtures may be formed in empty receptacles.

Do not spray on a naked flame or any incandescent material.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Observe official regulations on storing packagings with pressurized containers.

Provide ventilation for receptacles.

Avoid storage near extreme heat, ignition sources or open flame.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from oxidizing agents.

- **Further information about storage conditions:**

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

- **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· Components with limit values that require monitoring at the workplace:

112-34-5 2-(2-butoxyethoxy)ethanol

TLV (USA)	Long-term value: 67.5* mg/m ³ , 10* ppm *Inhalable fraction and vapor
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74-98-6 propane

PEL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
TLV (USA)	refer to Appendix F
EL (Canada)	Long-term value: 1000 ppm
EV (Canada)	Long-term value: 1.000 ppm
LMPE (Mexico)	Long-term value: 1000 ppm

67-63-0 propan-2-ol

PEL (USA)	Long-term value: 980 mg/m ³ , 400 ppm
REL (USA)	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV (USA)	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm BEI
EL (Canada)	Short-term value: 400 ppm Long-term value: 200 ppm
EV (Canada)	Short-term value: 400 ppm Long-term value: 200 ppm
LMPE (Mexico)	Short-term value: 400 ppm Long-term value: 200 ppm A4, IBE

97-99-4 tetrahydro-2-furymethanol

WEEL (USA)	Long-term value: 0.5 ppm
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· Ingredients with biological limit values:

67-63-0 propan-2-ol

BEI (USA)	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.

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Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

Not required under normal conditions of use.

For spills, respiratory protection may be advisable.

Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

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.

· **Eye protection:**



Safety glasses

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment**

No further relevant information available.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Aerosol

Color: White

· **Odor:** Pleasant

· **Odor threshold:** Not determined.

· **pH-value at 20 °C (68 °F):** 8.8

· **Change in condition**

Melting point/Melting range: Not applicable, as aerosol.

Boiling point/Boiling range: 95 °C (203 °F)

· **Flash point:** 26 °C (79 °F)

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- **Flammability (solid, gaseous):** Not applicable.
- **Auto-ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapor pressure at 21 °C (70 °F):** 50 - 70 psig
- **Density at 20 °C (68 °F):** 0.992 g/cm³ (8.278 lbs/gal)
- **Relative density** Not determined.
- **Vapour density** > 1 (Air=1)
- **Evaporation rate** Not applicable.
- **Solubility in / Miscibility with Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
- **VOC content:** 14.86 %
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
 - No decomposition if used and stored according to specifications.
 - Danger of receptacles bursting because of high vapor pressure if heated.
 - Pressurized container: Do not pierce or burn, even after use.
- **Possibility of hazardous reactions**
 - Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
 - Reacts with oxidizing agents.
 - Extremely flammable aerosol.
- **Conditions to avoid**
 - Keep away from heat and direct sunlight.
 - Excessive heat and contact with oxidizers.
 - Keep ignition sources away - Do not smoke.
- **Incompatible materials:** No further relevant information available.

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- **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Hydrocarbons
Sulfur oxides (SO_x)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
 - **on the skin:** Slight irritant effect on skin and mucous membranes.
 - **on the eye:** Slight irritant effect on eyes.
- **Sensitization:** Sensitizing effect by skin contact is possible with prolonged exposure.
- **Other information (about experimental toxicology):**
Ingestion is considered unlikely.
Vapors have narcotic effect.
- **Additional toxicological information:**
Toxic and/or corrosive effects may be delayed up to 24 hours.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.

- **Carcinogenic categories**

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Repeated Dose Toxicity:** Repeated exposures may result in skin and/or respiratory sensitivity.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Avoid transfer into the environment.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Contact waste processors for recycling information.

Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

- **Waste disposal key:** EPA RCRA Code (USA) : D001 .

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**

- **DOT, ADR, IMDG, IATA**

UN1950

- **UN proper shipping name**



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1 L (0.3 gal).

- **DOT**

Aerosols, flammable

- **ADR**

1950 AEROSOLS, flammable

- **IMDG**

AEROSOLS

- **IATA**

AEROSOLS, flammable

- **Transport hazard class(es)**

- **DOT**



- **Class**

2.1

- **Label**

2.1

- **ADR**



- **Class**

2 5F Gases

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· Label 2.1

· IMDG



· Class 2 Gases

· Label 2.1

· IATA



· Class 2.1

· Label 2.1

· Packing group

· DOT, ADR, IMDG, IATA Not Regulated

· Environmental hazards:

· Marine pollutant: No

· Special precautions for user Warning: Gases

· Danger code (Kemler): -

· EMS Number: F-D,S-U

· 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: 75kg
On cargo aircraft only: 150kg

· ADR

· Excepted quantities (EQ) Code: E0
Not permitted as Excepted Quantity

· IMDG

· Limited quantities (LQ) 1000mL

· Excepted quantities (EQ) Code: E0
Not permitted as Excepted Quantity

· UN "Model Regulation": UN1950, Aerosols, 2.1

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· SARA

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

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

67-63-0 | propan-2-ol

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

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are 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.

· **IARC (International Agency for Research on Cancer)**

67-63-0 | propan-2-ol

3

110-91-8 | morpholine

3

· **TLV (Threshold Limit Value established by ACGIH)**

67-63-0 | propan-2-ol

A4

110-91-8 | morpholine

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **State Right to Know Listings**

None of the ingredients is listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

112-34-5 | 2-(2-butoxyethoxy)ethanol

67-63-0 | propan-2-ol

· **Other regulations, limitations and prohibitive regulations**

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

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

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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.

· **Date of preparation / last revision** 11/25/2014 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 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)
 WHMIS: Workplace Hazardous Materials Information System (Canada)
 VOC: Volatile Organic Compounds (USA, EU)
 Flam. Gas 1: Flammable gases, Hazard Category 1
 Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
 Press. Gas: Gases under pressure: Compressed gas
 Flam. Liq. 2: Flammable liquids, Hazard Category 2
 Flam. Liq. 4: Flammable liquids, Hazard Category 4
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
 Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
 Repr. 2: Reproductive toxicity, Hazard Category 2
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
 Asp. Tox. 1: Aspiration hazard, Hazard Category 1

· **Sources**

SDS Prepared by:
 ChemTel Inc.
 1305 North Florida Avenue
 Tampa, Florida USA 33602-2902
 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
 Website: www.chemtelinc.com