

1. Identification

Product identifier TAKE DOWN (GREEN APPLE)

Other means of identification

SDS number 587N-046A

Product code HIL00467

Recommended use Enzymatic Cleaner / Deodorizer

Recommended restrictions For Labeled Use Only
Protect from Freezing

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name HILLYARD INDUSTRIES

Address 302 North Fourth St.
St. Joseph, MO 64501

Contact person Regulatory Affairs

Telephone number (816) 233-1321 (Ext. 8285)

Fax (816) 383-8485

E-mail regulatoryaffairs@hillyard.com

Emergency telephone # (800) 424-9300

(Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals)

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Serious eye damage/eye irritation Category 2A

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 3

Hazardous to the aquatic environment, long-term hazard Category 3

OSHA defined hazards Not classified.

Label elements



Signal word Warning

Hazard statement Causes serious eye irritation. Avoid prolonged contact with skin. Avoid contact with open wounds or broken skin. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention Wash thoroughly after handling. Avoid release to the environment. Wear eye protection/face protection. Observe good industrial hygiene practices.

Response If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. First Aid: Inhalation: Move to fresh air. Call a physician if symptoms develop or persist. Skin contact: Wash off with soap and water. Get medical attention if irritation develops and persists. Ingestion: Rinse mouth. Get medical attention if symptoms occur.

Storage Store away from incompatible materials.

Disposal

Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law in compliance with applicable federal, state and local requirements. CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer clean, dry container for recycling or reconditioning.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

None.

3. Composition/information on ingredients**Mixtures**

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|----------|
| C12-15 Alcohols Ethoxylated | | 68131-39-5 | 1 - < 3 |
| Undeceth-7 | | 34398-01-1 | 1 - < 3 |
| Amylase Enzyme | | 9000-90-2 | < 0.1 |
| Other components below reportable levels | | | 90 - 100 |

4. First-aid measures**Inhalation**

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures**Suitable extinguishing media**

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

This product is miscible in water. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Avoid contact with eyes. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store in tightly closed container. Do not allow material to freeze.

Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls No special ventilation requirements.

Individual protection measures, such as personal protective equipment

Eye/face protection Avoid contact with eyes. Where splashing of concentrate is a concern, use protective glasses with side shield

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Not normally needed.

Respiratory protection Not normally needed.

Thermal hazards None known.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance Hazy to cloudy, slightly yellow liquid.

Physical state Liquid.

Form Liquid.

Color Slightly yellow

Odor Green apple odor

Odor threshold Not available

pH 6.5 - 8.5

Melting point/freezing point Not applicable / Not available

Initial boiling point and boiling range 208 °F (97.78 °C) Corrected

Flash point > 200.0 °F (> 93.3 °C) Tag Closed Cup

Evaporation rate < 1 (ethyl ether = 1)

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 17.7 mm Hg

Vapor density 0.6421 AIR=1

Relative density 0.999 at 77°F

Solubility(ies)

Solubility (water) 100 % complete

Partition coefficient (n-octanol/water) Not available

Auto-ignition temperature Not available

| | |
|----------------------------------|----------------|
| Decomposition temperature | Not available |
| Viscosity | Not available |
| Other information | |
| Density | 8.32 lb/gal |
| Explosive properties | Not explosive. |
| Oxidizing properties | Not oxidizing. |
| Percent volatile | 95 - 97 % |
| VOC | 0 % |

10. Stability and reactivity

| | |
|---|---|
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | No hazardous decomposition products are known. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|--|
| Inhalation | Prolonged inhalation may be harmful. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | Expected to be a low ingestion hazard. |

| | |
|---|---|
| Symptoms related to the physical, chemical and toxicological characteristics | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |
|---|---|

Information on toxicological effects

| | |
|-----------------------|------------|
| Acute toxicity | Not known. |
|-----------------------|------------|

| Product | Species | Test Results |
|-------------------------|---------|------------------|
| TAKE DOWN (GREEN APPLE) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | 4.167e+006 mg/kg |
| Oral | | |
| LD50 | Rat | 709100 mg/kg |

| | |
|----------------------------------|--|
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. |
|----------------------------------|--|

| | |
|--|--------------------------------|
| Serious eye damage/eye irritation | Causes serious eye irritation. |
|--|--------------------------------|

Respiratory or skin sensitization

| | |
|----------------------------------|---|
| Respiratory sensitization | Not a respiratory sensitizer. |
| Skin sensitization | This product is not expected to cause skin sensitization. |

| | |
|-------------------------------|--|
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
|-------------------------------|--|

| | |
|------------------------|---|
| Carcinogenicity | Not classifiable as to carcinogenicity to humans. |
|------------------------|---|

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

| | |
|------------------------------|--|
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. |
|------------------------------|--|

| | |
|---|--------------------------------------|
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Not an aspiration hazard. |
| Chronic effects | Prolonged inhalation may be harmful. |

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

| Product | Species | Test Results |
|-------------------------|---------|-----------------------------|
| TAKE DOWN (GREEN APPLE) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Crustacea | EC50 | Daphnia |
| | | 17.7321, 48 hours estimated |
| Fish | LC50 | Fish |
| | | 43.6645, 96 hours estimated |
| Components | Species | Test Results |

C12-15 Alcohols Ethoxylated (CAS 68131-39-5)

Aquatic

Acute

Crustacea EC50 Water flea (Ceriodaphnia dubia) $\geq 0.37 - \leq 0.43$ mg/l, 48 hours

Fish LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss) $\geq 0.96 - \leq 1.4$ mg/l, 96 hours

Undeceth-7 (CAS 34398-01-1)

Aquatic

Acute

Crustacea EC50 Water flea (Daphnia magna) $\geq 1.6 - \leq 2.5$ mg/l, 48 hours

Fish LC50 Fathead minnow (Pimephales promelas) $\geq 3.2 - \leq 5$ mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not discharge into storm drains, water courses or onto the ground. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company. None known.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA) One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories Serious eye damage or eye irritation

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Amylase Enzyme (CAS 9000-90-2)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | No |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 03-26-2015

Revision date 06-22-2022

Version # 05

HMIS® ratings

Health: 2
Flammability: 0
Physical hazard: 0

Disclaimer

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Revision information

This document has undergone significant changes and should be reviewed in its entirety.