



1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Astonish

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use(s): Agriculture

1.3 Details of the supplier of the safety data sheet

Company: Rosen's Inc.
700 SW 291 Hwy
Suite 204
Liberty, MO 64068
Tel: 877- 781-9191

1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC (800-424-9300 within the United States or 703-527-3887 for international collect calls).

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)

| | |
|-----------------------------------|-------------|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2A |
| Acute toxicity | Category 4 |
| STOT – Repeated Exposure | Category 2 |

2.2 Label Elements

HCS 2012 (29 CFR 1910.1200)

Pictogram



Signal Word

WARNING!

Hazard Statements:

| | |
|------|---|
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H373 | May cause damage to kidneys through prolonged or repeated exposure. |

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|----------------------|---|
| In case of ingestion | Rinse mouth thoroughly. Drink 1 or 2 glasses of water. Do not induce vomiting without advice from poison control center. Get medical attention. |
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4.2 Most important symptoms and effects, both acute and delayed

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|------|---|
| Risk | Risk of: Serious damage to the eyes, skin irritation, and respiratory irritation. |
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4.3 Indication of any immediate medical attention and special treatment needed

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| Notes to physician | All treatments should be based on observed signs of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically. There is no specific antidote available. |
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5. FIREFIGHTING MEASURES

Flash Point: >100 deg C (> 212 deg F)
Method Used: Estimated.

5.1 Extinguishing Media

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|--------------------------------|---|
| Suitable extinguishing media | Water spray or fog. Carbon dioxide. Foam. |
| Unsuitable extinguishing media | Water jet. |

5.2 Special hazards arising from the substance or mixture

| | |
|---------------------------------------|---|
| Specific hazards during fire fighting | Fire conditions may produce oxides of nitrogen, carbon, phosphorus. |
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5.3 Advice for firefighters

| | |
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| Special protective equipment for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

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| Personal precautions, protective equipment and emergency procedures | Use personal protective equipment. Avoid inhalation of vapors and spray mist. For further information refer to section 8 "Exposure controls/personal protection." |
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6.2 Environmental precautions

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|---------------------------|-----------------------------------|
| Environmental precautions | Avoid release to the environment. |
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6.3 Methods and materials for containment and cleaning up

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| Prohibition | Use only non-sparking tools. |
|-------------|------------------------------|

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| Methods for containment | Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Large spills: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal. In the event of a spill or accidental release notify relevant authorities in accordance with all applicable regulations. |
|-------------------------|--|

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not taste or swallow. Avoid inhalation of vapors/water spray. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool, dry, well-ventilated place. Store away from incompatible materials. Recommended storage above 32 F (0 C).

7.3 Specific end use(s)

No data available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Introductory Remarks:

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Ethylene glycol: OSHA PEL CLV 50 ppm 125 mg/m³
ACGIH TLV 100mg/m³ aerosol

8.2 Exposure controls

Control measures

Engineering measures

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Personal protective equipment

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the US, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Hand protection

It is good industrial hygiene practice to minimize skin contact. Chemical resistant gloves are recommended.

Eye protection

Wear safety glasses with side shields (or goggles)

| | |
|--------------------------|---|
| Skin and body protection | Recommended preventive skin protection Footwear protection against chemicals Impervious clothing Choose body protection according to the amount and concentration of the dangerous substances at the work place. |
| Hygiene measures | Remove and wash contaminated apparel. Observe good industrial hygiene practices. Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials: <ol style="list-style-type: none"> 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet. 3) Wash exposed skin promptly to remove accidental splashes or contact with material. |
| Protective measures | Ensure that eyewash stations and safety showers are close to the workstation location. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

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|--|--|
| Appearance | Physical state: Liquid Color: Amber |
| Odor | Mild. |
| Odor Threshold | No data available |
| pH | No data available |
| Freezing point | 32 F (0 C) |
| Boiling point/boiling range | No data available |
| Flash point | > 100 deg C (>212 deg F) Estimated. |
| Evaporation rate (butylacetate = 1) | No data available |
| Flammability/Explosive limit | No data available |
| Autoignition temperature | No data available |
| Vapor pressure | No data available |
| Vapor density | No data available |
| Density | 1.284 g/mL |
| Solubility | Water solubility: 77 F (25 C) Soluble |
| Partition coefficient: n-octanol/water | Not applicable, preparation. |
| Thermal decomposition | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Polymerization

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Conditions to avoid

Keep away from heat and sources of ignition. Store above 32 F.

10.5 Incompatible materials

Reacts with:

Oxidizing materials, Acids, Strong reducing agents, Strong bases

10.6 Hazardous decomposition products

On combustion or on thermal decomposition (pyrolysis), releases:

Carbon oxides (CO + CO₂), nitrogen oxides (NO_x)

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Not classified as hazardous for acute oral toxicity according to GHS
According to the data on the components
According to the classification criteria for mixtures.

Acute inhalation toxicity

Not classified as hazardous for acute inhalation toxicity according to GHS

According to the data on the components

According to the classification criteria for mixtures.

Acute dermal toxicity

Not classified as hazardous for acute dermal toxicity according to GHS

According to the data on the components

According to the classification criteria for mixtures.

Acute toxicity (other routes of administration)

No data available.

Skin corrosion/irritation

Skin irritation

Not classified as irritating to skin.

According to the data on the components

According to the classification criteria for mixtures

Serious eye damage/eye irritation

Eye irritation

Risk of serious damage to eyes.

According to the data on the components.

According to the classification criteria for mixtures.

Respiratory or skin sensitization

Sensitization

Does not cause skin sensitization.

According to the data on the components

According to the classification criteria for mixtures.

Mutagenicity

Genotoxicity in vitro

Product is not considered to be genotoxic
According to the data on the components
According to the classification criteria for mixtures.

Genotoxicity in vivo

Product is not considered to be genotoxic
According to the data on the components
According to the classification criteria for mixtures.

Carcinogenicity

Carcinogenicity

No data available

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP
IARC
OSHA
ACGIH

Toxicity for reproduction and development

No data available

STOT

STOT-single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

According to the classification criteria for mixtures.

STOT-repeated exposure

The substance or mixture may cause damage to the kidney after repeated ingestion. The substance may cause damage to the kidney after repeated skin contact with high doses.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available

12.7 Ecotoxicity assessment

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Disposal

Advice on Disposal

Dispose of waste and residues in accordance with local authority requirements. Incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT:

Not regulated.

TDG:

Not regulated.

IMDG

Not regulated.

NOM

No data available.

IATA

Not regulated.

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

15. REGULATORY INFORMATION

15.1 Notification status

United States TSCA Inventory

YES (positive listing)

On TSCA inventory.

Canadian Domestic Substances List (DSL)

YES (positive listing)

All components of this product are on the Canadian DSL.

15.2 Federal Regulations

US EPA EPCRA SARA Title III

SARA Hazard Designation Sections 311/312 (40 CFR 370)

| | |
|-----------------------------------|-----|
| Fire hazard | No |
| Reactivity Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Acute Health Hazard | Yes |
| Chronic Health Hazard | Yes |

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established

SARA 302

by SARA Title III, Section 313.

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 304 Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Reportable Quantity

This material does not contain any components with SARA 302 RQ.

16. OTHER INFORMATION**NFPA Classification**

| | |
|---------------------------|------------|
| Health | 2 moderate |
| Flammability | 1 slight |
| Instability or Reactivity | 0 minimal |

HMIS Classification

| | |
|--------------|-----------|
| Health | 2 serious |
| Flammability | 1 slight |
| Reactivity | 0 minimal |

Further information

| | |
|---------------------|-----------------|
| Date updated | 11/29/2016 |
| Further information | New product SDS |

Key or legend to abbreviations and acronyms used in the safety data sheet

| | |
|-------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| OSHA | Occupational Safety and Health Administration |
| NTP | National Toxicology Program |
| IARC | International Agency for Research on Cancer |
| NIOSH | National Institute for Occupational Safety and Health |
| NFPA | National Fire Protection Association |
| HMIS | Hazardous Materials Identification System (Paint & Coating) |

Disclaimer:

The information provided in this safety data sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in another manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.