Section 1. Identification

Product Identifier: KOCHKLEEN® ADDITIVE Z

General Use: Cleaning Agent

Physical Description

Manufacturer/Importer/Supplier/Distributor Information

Company Name: John R Hess & Company, Inc.
Address: 400 Station St
Cranston, RI 02910
USA

Telephone: (401) 785-9300 (800) 556-4377
E-mail: custerv@jrhess.com

Emergency Phone Numbers
Chemtrec 1-800-424-9300 (Spill, Leak, Fire, Exposure, Accident)
+1 (703) 527-3887 (outside USA)

Section 2. Hazards Identification

Classification of the substance or mixture:

GHS classification

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Oral</th>
<th>Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious Eye Damage</td>
<td>Category 1</td>
<td></td>
</tr>
</tbody>
</table>

GHS label elements

Hazard pictograms/symbols

Signal Word: Danger

Hazard Statements:

H302: Harmful if swallowed.
H318: Causes serious eye damage.

Precautionary Statements:

Prevention

Response

P264: Wash hands thoroughly after handling
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release into the environment.
P280: Wear eye protection/face protection.
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and
Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Concentration (Weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxy-1,2-ethanediyl, a-undecyl-w-hydroxy-</td>
<td>34398-01-1</td>
<td>100 %</td>
</tr>
</tbody>
</table>

CHEMICAL FAMILY: Alcohol Ethoxylate

Section 4. First Aid Measures

General Advice
Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

Inhalation
Move to fresh air.

Skin Contact
Wash off immediately with plenty of water for at least 20 minutes. Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay.

Eye Contact
Flush eyes immediately with plenty of water, also under the eyelids, for at least 20 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses if present and easy to do so. Continue rinsing. Chemical burns must be treated promptly by a physician.

Ingestion
Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim’s head to the side.

Most important
Eye disease. Skin disorders and Allergies.

Section 5. Fire-Fighting Measures

Suitable extinguishing media
- Alcohol-resistant foam.
- Carbon dioxide (CO2). Dry chemical.
- Dry sand. Limestone powder

Specific hazards
Incomplete combustion may form carbon monoxide. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

Special protective equipment for fire-fighters
Use personal protective equipment. Wear self-contained breathing apparatus for fire-fighting if necessary.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures
Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Evacuate personnel to safe areas.

Environmental precautions
Construct a dike to prevent spreading. Construct a dike to prevent spreading.
Methods for cleaning up

Contact Air Products’ Emergency Response Center for advice. Approach suspected leak areas with caution. Place in appropriate chemical waste container.

Additional advice

If possible, stop flow of product.

Section 7. Handling and Storage

Handling

Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid contact with eyes. Use personal protective equipment. When using, do not eat, drink or smoke.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

Section 8. Exposure Controls/Personal Protection

Engineering measures

Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protective equipment:

Respiratory protection

Not required for properly ventilated areas.

Hand protection

Nitrile rubber.
Impervious gloves.
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection

Chemical resistant goggles must be worn.

Skin and body protection

Long sleeve shirts and trousers without cuffs.

Environmental exposure controls

Construct a dike to prevent spreading.

Special instructions for protection and hygiene

Provide readily accessible eye wash stations and safety showers. Wash hands at the end of each work-shift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

Section 9. Physical and Chemical Properties

Appearance

Liquid, Colorless

Odor

Mild

Odor Threshold

No data available

pH

No data available

Melting point/range

39°F (4 °C)

Boiling point/range

> 572 °F (> 300 °C)

Flash point

302 °F (150 °C)

Evaporation rate

No data available

Flammability (solid, gas)

Not applicable

Upper/lower explosion/flammability limit

Not applicable

Vapor pressure

0.05 mmHg

Water solubility

9.4 g/l

Relative vapor density

Not applicable

Relative density

0.966

Partition coefficient (n octanol/water)

No data available
Section 10. Stability and Reactivity

Chemical Stability Stable under normal conditions
Conditions to avoid No data available
Materials to avoid Oxidizing agents
Hazardous decomposition products Carbon monoxide Carbon dioxide (CO2)
Possibility of hazardous Reactions/Reactivity No data available

Section 11. Toxicological Information

Information on toxicological effects
Likely routes of exposure
Effects on Eye Sever eye irritation
Effects on Skin Causes skin irritation
Inhalation Effects No data available
Ingestion Effects No data available
Symptoms No data available
Acute Toxicity
Acute Oral Toxicity No data available on the product itself
Acute Oral Toxicity for Components:
Poly(oxy-1,2-ethanediyl), a-undecyl-w-hydroxy LD50 : 1,000 - 2,000 mg/kg
Species : Rat.
Inhalation
Acute Dermal Toxicity No data available on the product itself
LD50 : > 2,000 mg/kg
Species : Rabbit.
Skin corrosion/irritation Moderate skin irritation
Serious eye damage/eye irritation Severe eye irritation
Sensitization No data available
Chronic toxicity or effects from long term exposures:
Carcinogenicity No data available
Reproductive toxicity No data available on the product itself
Germ cell mutagenicity No data available on the product itself
Specific target organ systemic toxicity (single exposure) No data available
Specific target organ systemic toxicity (repeated exposure) No data available
Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure:
This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Eye disease., Skin disorders and Allergies.

Section 12. Ecological Information
Ecotoxicity effects

Aquatic toxicity
Toxicity to fish - Components
Poly(oxy-1,2-ethanediyl), a-undecyl-w-hydroxy-
LC50 (96 h): 1 - 10 mg/l
Species: Fathead minnow (Pimephales promelas)

Toxicity to daphnia - Components
Poly(oxy-1,2-ethanediyl), a-undecyl-w-hydroxy-
EC50 (48 h): 1 - 10 mg/l
Species: Daphnia magna

Toxicity to algae - Components
Poly(oxy-1,2-ethanediyl), a-undecyl-w-hydroxy-
EC50 (96 h): 1 - 10 mg/l
Species: Algae

Toxicity to other organisms
No data available

Persistence and degradability:

Biodegradability
Readily biodegradable, as defined by OECD, substance that degrades > 60-70% within a 10-day window over 28 days

Mobility
No data available

Bioaccumulation
No data is available on the product itself.

Section 13. Disposal Considerations

Waste from residue/unused products
Contact supplier if guidance is required

Contaminated packaging
Dispose of container and unused contents in accordance with federal, state, and local requirements

Section 14. Transport Information

DOT
Not dangerous goods

IATA
Not dangerous goods

IMDG
Not dangerous goods

TDG
Not dangerous goods

Further Information
Not classified as dangerous in the meaning of transport regulations. The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact an Air Products customer service representative.

Section 15. Regulatory Information

Toxic Substance Control Act (TSCA) 12(b) Component(s):
None

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification
Acute Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level
None

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)
This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

This product meets the criteria of the US EPA Design for Environment (DFE) Surfactant screen and is
listed on CleanGredients.

WHMIS Classification: D2B

WHMIS Ratings:
Compressed Gas: No       Flammable/Combustible: No       Oxidizer: No       Acutely Toxic: No
Other Toxic Effects: Yes  Bio Hazardous: No               Corrosive: No       Dangerously Reactive: No

Hazardous Material Information System (USA)

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical hazards</td>
<td>0</td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

Section 16. Other Information

Prepared By:         HSE Department
Revision Date:       05/22/2017
Version:            2
Precedes:           05/14/2015

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