

SAFETY DATA SHEET

1. Identification

Product identifier OAK KLEEN™ 302-LO-Y
INDUSTRIAL CLEANER

Other means of identification

SDS number Not applicable

Recommended use INDUSTRIAL CLEANER

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name CIMCOOL® Industrial Products LLC
3000 Disney Street
Cincinnati, Ohio 45209

Telephone (General Information) 513-458-8100

Emergency telephone number 1-800-424-9300 (CHEMTREC)

Emergency telephone number (outside USA) 1-703-527-3887 (CHEMTREC)

2. Hazard(s) identification

| | | |
|------------------------------|---|------------|
| Physical hazards | Corrosive to metals | Category 1 |
| Health hazards | Acute toxicity, oral | Category 4 |
| | Skin corrosion/irritation | Category 1 |
| | Serious eye damage/eye irritation | Category 1 |
| | Specific target organ toxicity, repeated exposure | Category 2 |
| Environmental hazards | Not classified. | |
| OSHA defined hazards | Not classified. | |

Label elements



Signal word Danger

Hazard statement May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

Response IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get immediate medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell. Take off immediately all contaminated clothing and wash it before reuse.

Storage Keep container tightly closed. Protect from sunlight. Store in a well-ventilated place. Store away from incompatible materials. Store in accordance with local/regional/national/international regulation.

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

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information 3.55% of the mixture consists of component(s) of unknown acute oral toxicity.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|-----------|
| PHOSPHORIC ACID | | 7664-38-2 | 30 - 60 |
| DIETHYLENE GLYCOL | | 111-46-6 | 10 - 30 |
| ALCOHOLS, C9-11, ETHOXYLATED | | 68439-46-3 | 0.5 - 1.5 |
| Other components below reportable levels | | | 10 - 30 |

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

| | |
|---|---|
| Inhalation | If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately. |
| Skin contact | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash contaminated clothing before reuse. |
| 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. Get medical attention immediately. |
| Ingestion | Rinse mouth thoroughly. Drink 1 or 2 glasses of water. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention immediately. |
| Most important symptoms/effects, acute and delayed | Corrosive effects. Causes serious eye damage. Burning pain and severe corrosive skin damage. Defatting of the skin. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Symptoms may be delayed. |
| General information | If exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance. |

5. Fire-fighting measures

| | |
|--|--|
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | Not applicable, non-combustible. |
| Specific hazards arising from the chemical | During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Wear suitable protective equipment. |
| Fire fighting equipment/instructions | Use standard firefighting procedures and consider the hazards of other involved materials. 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. In the event of fire and/or explosion do not breathe fumes. |
| 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. Wear appropriate personal protective equipment. Do not breathe vapors or spray mist. 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

Local authorities should be advised if significant spillages cannot be contained. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Clean up in accordance with all applicable regulations. 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. Do not flush spill to drain. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination. Contact local authorities in case of spillage to drain/aquatic environment.

7. Handling and storage

Precautions for safe handling

Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not breathe dust/fume/gas/mist/vapors/spray. Do not ingest. Do not get this material on clothing. Avoid contact with skin and eyes. Avoid prolonged and repeated contact. Use only in well-ventilated areas. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash thoroughly after handling. Wash contaminated clothing before reuse. Practice good housekeeping. Handle and open container with care. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

To maintain product quality, do not store in heat or direct sunlight. Use care in handling/storage. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in a well-ventilated place. Keep away from food, drink and animal feedingstuffs. Room temperature - normal conditions. Do not allow material to freeze. If frozen, product may separate. Thaw completely at room temperature and stir thoroughly prior to use.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| | Type | Value |
|---------------------------------|------|---------|
| PHOSPHORIC ACID (CAS 7664-38-2) | PEL | 1 mg/m3 |

US. NIOSH: Pocket Guide to Chemical Hazards

| | Type | Value |
|---------------------------------|------|---------|
| PHOSPHORIC ACID (CAS 7664-38-2) | STEL | 3 mg/m3 |
| | TWA | 1 mg/m3 |

US. ACGIH Threshold Limit Values

| | Type | Value |
|---------------------------------|------|---------|
| PHOSPHORIC ACID (CAS 7664-38-2) | STEL | 3 mg/m3 |
| | TWA | 1 mg/m3 |

Appropriate engineering controls

Ensure compliance with applicable exposure limits. 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. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Do not get in eyes. Eye wash fountain is recommended.

Skin protection

Hand protection

Use protective gloves made of: Nitrile.

Other

Wear suitable protective clothing and gloves.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Do not get in eyes, on skin, on clothing. 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 | CLEAR |
| Physical state | Liquid. |
| Form | Liquid. |
| Color | Not available. |
| Odor | CHEMICAL |
| Odor threshold | Not available. |
| pH | 1.4 |
| Melting point/freezing point | < 32 °F (< 0 °C) |
| Initial boiling point and boiling range | > 212 °F (> 100 °C) |
| Flash point | Not Applicable |
| Evaporation rate | Like water when diluted |
| Flammability (solid, gas) | Not applicable. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | Not available. |
| Vapor density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | 100 % Water Miscible |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| pH in aqueous solution | 1.5 @ 5% |
| Specific gravity | 1.41 |
| VOC ASTM D2369 | 0 % |

10. Stability and reactivity

| | |
|---|--|
| Reactivity | May be corrosive to metals. Reacts violently with strong alkaline substances. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur. |
| Conditions to avoid | Heat, flames and sparks. Do not mix with other chemicals. Contact with incompatible materials. |
| Incompatible materials | Bases. Metals. Avoid contact with oxidizers or reducing agents. |
| Hazardous decomposition products | Smoke, fumes, oxides of phosphorus, and oxides of carbon |

11. Toxicological information**Information on likely routes of exposure**

| | |
|---------------------|--|
| Inhalation | Prolonged inhalation may be harmful. May cause irritation to the respiratory system. |
| Skin contact | Causes skin burns. |

Eye contact Causes eye burns.

Ingestion Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Causes serious eye damage. Burning pain and severe corrosive skin damage. Defatting of the skin.

Information on toxicological effects

Acute toxicity Causes burns. Harmful if swallowed.

| Components | Species | Test Results |
|-------------------|----------------|---------------------|
|-------------------|----------------|---------------------|

ALCOHOLS, C9-11, ETHOXYLATED (CAS 68439-46-3)

Acute

Dermal

| | | |
|------|--------|-------------|
| LD50 | Rabbit | > 5000 mg/l |
|------|--------|-------------|

Oral

| | | |
|------|-----|-------------|
| LD50 | Rat | > 1400 mg/l |
|------|-----|-------------|

DIETHYLENE GLYCOL (CAS 111-46-6)

Acute

Dermal

| | | |
|------|--------|-------------|
| LD50 | Rabbit | 11890 mg/kg |
|------|--------|-------------|

Inhalation

| | | |
|------|-----|---------------------|
| LC50 | Rat | > 4.6 mg/l, 4 hours |
|------|-----|---------------------|

Oral

| | | |
|------|-----|------------|
| LD50 | Cat | 3300 mg/kg |
|------|-----|------------|

| | | |
|--|-----|------------|
| | Dog | 9000 mg/kg |
|--|-----|------------|

| | | |
|--|------------|------------|
| | Guinea pig | 8700 mg/kg |
|--|------------|------------|

| | | |
|--|-------|-----------|
| | Mouse | 13.3 g/kg |
|--|-------|-----------|

| | | |
|--|--------|-----------|
| | Rabbit | 26.9 g/kg |
|--|--------|-----------|

| | | |
|--|-----|-------------|
| | Rat | 12565 mg/kg |
|--|-----|-------------|

PHOSPHORIC ACID (CAS 7664-38-2)

Acute

Dermal

| | | |
|------|--------|------------|
| LD50 | Rabbit | 2740 mg/kg |
|------|--------|------------|

Inhalation

| | | |
|------|-----|---------------------------------|
| LC50 | Rat | 850 mg/m ³ , 1 hours |
|------|-----|---------------------------------|

Oral

| | | |
|------|-----|------------|
| LD50 | Rat | 1530 mg/kg |
|------|-----|------------|

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Corrosive to skin and eyes.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization Not classified.

Skin sensitization Not classified.

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

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

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 | Causes damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | May be harmful if swallowed and enters airways. |
| Chronic effects | Prolonged exposure may cause chronic effects. |
| Further information | Symptoms may be delayed. |

12. Ecological information

Ecotoxicity Contains a substance which causes risk of hazardous effects to the environment.

| Components | Species | Test Results |
|---|---------|---|
| ALCOHOLS, C9-11, ETHOXYLATED (CAS 68439-46-3) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (<i>Daphnia magna</i>) 2.9 - 8.5 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (<i>Pimephales promelas</i>) 6 - 12 mg/l, 96 hours |
| DIETHYLENE GLYCOL (CAS 111-46-6) | | |
| Aquatic | | |
| Fish | LC50 | Western mosquitofish (<i>Gambusia affinis</i>) > 32000 mg/l, 96 hours |
| <i>Acute</i> | | |
| Crustacea | EC50 | <i>Daphnia</i> > 10000 mg/l, 48 hours |
| PHOSPHORIC ACID (CAS 7664-38-2) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Crustacea | EC50 | <i>Daphnia</i> > 100 mg/l, 48 hours |

* Estimates for product may be based on additional component data not shown.

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

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

DIETHYLENE GLYCOL -1.98

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 Consult authorities before disposal. 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.

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 Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

14. Transport information

DOT

| | |
|-------------------------------------|---|
| UN number | UN3264 |
| UN proper shipping name | Corrosive liquid, acidic, inorganic, n.o.s. (PHOSPHORIC ACID RQ = 9050 LBS) |
| Transport hazard class(es) | |
| Class | 8 |
| Subsidiary risk | - |
| Label(s) | 8 |
| Packing group | II |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |

Special provisions B2, IB2, T11, TP2, TP27
Packaging exceptions 154
Packaging non bulk 202
Packaging bulk 242

Supplemental Information: Exceptions found in 49 CFR 173.154 for CLASS 8 will not apply since the product concentrate is corrosive to skin.

IATA

UN number UN3264
UN proper shipping name Corrosive liquid, acidic, inorganic, n.o.s. (PHOSPHORIC ACID)
Transport hazard class(es)
 Class 8
 Subsidiary risk -
Packing group II
Environmental hazards No.
ERG Code 8L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
 Passenger and cargo aircraft Allowed.
 Cargo aircraft only Allowed.

IMDG

UN number UN3264
UN proper shipping name CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID)
Transport hazard class(es)
 Class 8
 Subsidiary risk -
Packing group II
Environmental hazards
 Marine pollutant No.
EmS F-A, S-B
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

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

DOT



IATA; IMDG



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. It may be reportable under the provisions of SARA Sections 311 and 312 if specific threshold criteria are met or exceeded.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

PHOSPHORIC ACID (CAS 7664-38-2) Listed.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

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.

Food and Drug Administration (FDA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

PHOSPHORIC ACID (CAS 7664-38-2)

US. New Jersey Worker and Community Right-to-Know Act

PHOSPHORIC ACID (CAS 7664-38-2)

US. Pennsylvania Worker and Community Right-to-Know Law

DIETHYLENE GLYCOL (CAS 111-46-6)

PHOSPHORIC ACID (CAS 7664-38-2)

US. Rhode Island RTK

PHOSPHORIC ACID (CAS 7664-38-2)

California South Coast Air Quality Management District (SCAQMD) Rule 1144 (VOC Emissions)

This product is not subject to California's South Coast Air Quality Management District Rule 1144 (Rule only applicable to Metalworking Fluids, Vanishing Oils and Rust Inhibitors).

US. 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.

International Inventories

| Country(s) or region | Inventory name | On inventory or exempt (yes/no)* |
|----------------------|--|----------------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |

| Country(s) or region | Inventory name | On inventory or exempt (yes/no)* |
|-----------------------------|--|----------------------------------|
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

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

| | |
|-----------------------------|--|
| Issue date | 07-23-2015 |
| Version # | 01 |
| Further information | Not available. |
| 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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. |
| Revision Information | Product and Company Identification: Product and Company Identification Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties Transport Information: Material Transportation Information Regulatory Information: United States HazReg Data: North America GHS: Classification |