



KOCHKLEEN® Formula One

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product Identifier	KOCHKLEEN® Formula One
Product Use Description	Cleaning Agent
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
Emergency Phone Numbers	Chemtrec 1-800-424-9300 (Spill, Leak, Fire, Exposure, Accident) +1 (703) 527-3887 (outside USA)

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)

Serious eye damage, Category 1
Skin sensitization, Category 1

H318: Causes serious eye damage.
H317: May cause an allergic skin reaction.

Label elements

HCS 2012 (29 CFR 1910.1200)

Pictogram



Signal Word

Danger

Hazard Statements:

H317
H318

May cause an allergic skin reaction.
Causes serious eye damage.

Precautionary Statements:

Prevention

P261
P272
P280
P280

Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
Contaminated work clothing should not be allowed out of the workplace.
Wear eye protection/ face protection.
Wear protective gloves.

Response

P302 + P352
P305 + P351 + P338

IF ON SKIN: Wash with plenty of soap and water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/ physician.
If skin irritation or rash occurs: Get medical advice/ attention.
Wash contaminated clothing before reuse.

P310
P333 + P313
P363

Other hazards which do not result in classification

H402: Harmful to aquatic life.
H412: Harmful to aquatic life with long lasting effects.

Slightly irritating to the skin.

SECTION 3: Composition/information on ingredients**Substance**

Synonyms Ethoxylated Thioether

Hazardous Ingredients and Impurities

Chemical Name	Identification number CAS-No.	Concentration [%]
Ethoxylated Dodecyl Mercaptan	9004-83-5	90 - 100

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Non-Hazardous Ingredients and Impurities

Chemical Name	Identification number CAS-No.	Concentration [%]
Water	7732-18-5	4 - 6

Mixture

Not applicable, this product is a substance.

SECTION 4: First aid measures**Description of first-aid measures**

General advice

Show this material safety data sheet to the doctor in attendance.
First responder needs to protect himself.

If inhaled

Negligible or unlikely exposure pathways
If inhaled, remove to fresh air.
Consult a physician if necessary.

Skin contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical advice.
Ingestion	Do not induce vomiting without medical advice. If victim is conscious: Rinse with water. Keep at rest. Do not give anything to drink. Do not leave the victim unattended. Vomiting may occur spontaneously Risk of product entering the lungs on vomiting after ingestion. Lay victim on side. Seek medical advice.

Most important symptoms and effects, both acute and delayed

Risks	Skin contact may aggravate existing skin disease Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis
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Indication of any immediate medical attention and special treatment needed

Notes to physician	All treatments should be based on observed signs and symptoms 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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SECTION 5: Firefighting measures

Flash point	> 200 °F (> 93 °C) closed cup Flammability class: Will burn
Autoignition temperature	no data available
Flammability / Explosive limit	no data available

Extinguishing media

Suitable extinguishing media	Extinguishing media - small fires Dry chemical Carbon dioxide (CO ₂) Extinguishing media - large fires Foam Water spray
Unsuitable extinguishing media	High volume water jet (frothing possible)

Special hazards arising from the substance or mixture

Specific hazards during fire-fighting	Under fire conditions: Will burn Hazardous decomposition products formed under fire conditions. On combustion or on thermal decomposition (pyrolysis), releases:
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Carbon oxides
Sulfur oxides

Advice for firefighters

Special protective equipment for fire-fighters : Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures : Wear suitable protective equipment.
For further information refer to section 8 "Exposure controls / personal protection."
Avoid contact with the skin and the eyes.
Do not allow uncontrolled discharge of product into the environment.
Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid.

Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies

Methods and materials for containment and cleaning up

Recovery : Soak up with inert absorbent material.
Shovel or sweep up.
Keep in suitable, closed containers for disposal.
Never return spills in original containers for re-use.

Decontamination / cleaning : Clean contaminated surface thoroughly.
Wash nonrecoverable remainder with large amounts of water.
Recover the cleaning water for subsequent disposal.
Decontaminate tools, equipment and personal protective equipment in a segregated area.

Disposal : Dispose of in accordance with local regulations.

Additional advice : Material can create slippery conditions.

Reference to other sections

Reference to other sections : 7. HANDLING AND STORAGE
8. EXPOSURE CONTROLS/PERSONAL PROTECTION
13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage

Precautions for safe handling

Technical measures : Ethylene oxide may collect in container head space.
Provide adequate ventilation.

Advice on safe handling and usage : Handle in accordance with good industrial hygiene and safety practice.
Avoid inhalation of vapor or mist.
Avoid contact with skin and eyes.

Hygiene measures	<p>Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:</p> <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.
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Conditions for safe storage, including any incompatibilities

Technical Measures for storage	Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
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Storage conditions

Recommended	Keep container tightly closed in a dry and well-ventilated place.
To be avoided	<p>Keep away from open flames, hot surfaces and sources of ignition.</p> <p>Keep away from incompatible materials to be indicated by the manufacturer</p>
Incompatible products	<p>Strong oxidizing agents</p> <p>Strong reducing agents.</p>

Packaging Measures

Packaging conditions	Steel drums with an inner lining.
Packaging material —Recommended	Coated steels.

Storage stability

Storage temperature	no data available
Other data	Stable under recommended storage conditions.

Specific end use(s)

no data available

SECTION 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.

Control parameters

Contains no substances with occupational exposure limit values.

Exposure controls

Control measures

Engineering measures	<p>Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures :</p> <p>Effective exhaust ventilation system</p>
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Personal protective equipment

Respiratory protection	When respirators are required, select NIOSH/MSHA approved equipment
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based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Hand protection	<p>Recommended preventive skin protection Gloves Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.</p>
Eye protection	<p>Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.</p> <p>Eye contact should be prevented through the use of:</p> <p>Safety glasses with side-shields</p>
Skin and body protection	<p>Recommended preventive skin protection Footwear protecting against chemicals impervious clothing</p> <p>Choose body protection according to the amount and concentration of the dangerous substance at the work place.</p>
Hygiene measures	<p>Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:</p> <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	<p>Ensure that eyewash stations and safety showers are close to the workstation location.</p> <p>Emergency equipment immediately accessible, with instructions for use.</p> <p>Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.</p> <p>The protective equipment must be selected in accordance with current local standards and in cooperation with the supplier of the protective equipment.</p>

SECTION 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.

Information on basic physical and chemical properties

Appearance	<p>Form : viscous Physical state: liquid Color: colorless to pale yellow.</p>
Odor	slight
Odor Threshold	no data available
pH	5.0 - 8.0 (10 % (m/v)) Aqueous solution

Melting point/range	ca. 32 °F (0 °C)
Freezing point	ca. 43 °F (6 °C)
Flash point	> 200 °F (> 93 °C) closed cup Flammability class: Will burn
Evaporation rate (Butylacetate = 1)	no data available
Flammability (solid, gas)	no data available
Flammability (liquids)	no data available
Flammability / Explosive limit	no data available
Autoignition temperature	no data available
Vapor pressure	< 1 mmHg 1.33 hPa
Vapor density	no data available
Density	ca. 1.05 g/cm ³ (77 °F (25 °C))
Solubility	<u>Water solubility</u> : soluble <u>Solubility in other solvents</u> : common organic solvents : soluble
Partition coefficient: n-octanol/water	no data available
Thermal decomposition	392 °F (200 °C)
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	Nonoxidizing material according to EC criteria
Other information	
Volatiles by Volume	< 6 %

SECTION 10: Stability and reactivity

Reactivity

no data available

Chemical stability

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions

Polymerization Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid Keep away from heat and sources of ignition.

Incompatible materials

Materials to avoid Strong oxidizing agents
Strong reducing agents

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

Aspiration toxicity

Aspiration toxicity : No aspiration toxicity classification

SECTION 12: Ecological information**Toxicity****Aquatic Compartment**

Acute toxicity to fish

The product itself has not been tested

Acute toxicity to daphnia and other aquatic invertebrates.

The product itself has not been tested

Toxicity to aquatic plants

The product itself has not been tested

Toxicity to microorganisms

The product itself has not been tested

Chronic toxicity to fish

The product itself has not been tested

Chronic toxicity to daphnia and other aquatic invertebrates.

The product itself has not been tested

Sediment compartment

Toxicity to benthic organisms

The product itself has not been tested

Terrestrial Compartment

Toxicity to soil dwelling organisms

The product itself has not been tested

Toxicity to terrestrial plants

The product itself has not been tested

Toxicity to above ground organisms

The product itself has not been tested

Ecotoxicity assessment

Acute aquatic toxicity

Harmful to aquatic life.

Information given is based on data obtained from similar substances. Unpublished internal reports

Chronic aquatic toxicity

Harmful to aquatic life with long lasting effects.

Information given is based on data obtained from similar substances.

Persistence and degradability

Biodegradability

Ultimate aerobic biodegradability

Partially biodegradable

Unpublished internal reports

Information given is based on data obtained from similar substances.

Degradability assessment

The product is not considered to be rapidly degradable in the environment

No data available

Bioaccumulative potential**Mobility in soil**

Known distribution to environmental compartments

Ultimate destination of the product: Water

Results of PBT and vPvB assessment

No data available

Other Adverse Effects

No data available

SECTION 13: Disposal considerations**Waste treatment methods****Product Disposal**

Advice on Disposal

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Waste Code

EPA:
Hazardous Waste – NO

Advice on cleaning and disposal of packaging

Advice on Disposal

Rinse with an appropriate solvent.
Dispose of contents/container in accordance with local regulation.

SECTION 14: Transport information**DOT**

not regulated

TDG

not regulated

IMDG

not regulated

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.

SECTION 15: Regulatory information**Notification status**

United States TSCA Inventory

y (positive listing)
On TSCA Inventory

Canadian Domestic Substances List (DSL)

y (positive listing)
All components of this product are on the
Canadian DSL.

Australia Inventory of Chemical Substances (AICS)

y (positive listing)
On the inventory, or in compliance with the
inventory

Japan. CSCL - Inventory of Existing and New Chemical Substances

y (positive listing)
On the inventory, or in compliance with the
inventory

Korea. Korean Existing Chemicals Inventory (KECI)

y (positive listing)
On the inventory, or in compliance with the
inventory

China. Inventory of Existing Chemical Substances in China (IECSC)

y (positive listing)
On the inventory, or in compliance with the
inventory**Federal Regulations****SARA 311/312 Hazards**

Fire Hazard	no
Reactivity Hazard	no
Sudden Release of Pressure Hazard	no
Acute Health Hazard	yes
Chronic Health Hazard	no

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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

EPCRA - Emergency Planning and Community Right-to-Know**CERCLA Reportable Quantity**

Ingredients	CAS-No.	Reportable quantity
Ethylene Oxide	75-21-8	10 lb
1,4-Dioxane	123-91-1	100 lb

SARA 304 Reportable Quantity

Ingredients	CAS-No.	Reportable quantity
Ethylene Oxide	75-21-8	10 lb

SARA 302 Reportable Quantity

Ingredients	CAS-No.	Reportable quantity
Ethylene Oxide	75-21-8	10 lb

State Regulations**California Prop 65**

WARNING! This product contains a chemical known in the State of California to cause cancer.
Ethylene Oxide
1,4-Dioxane

WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.
Ethylene Oxide

No Significant Risk Levels (NSRLs) have been established for the following:
Ethylene Oxide
Value : 2 micrograms per day

1,4-Dioxane
Value : 30 micrograms per day

SECTION 16: Other information**NFPA-Classification**

Health 2 moderate
Flammability 1 slight
Instability or Reactivity 0 minimal

HMIS-Classification

Health 2 moderate

Flammability : 1 slight
Reactivity 0 minimal

Prepared By: HSE Department
Issue Date: 05/11/2017
Version: 2
Precedes: 05/04/2015

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
WHMIS	Workplace Hazardous Materials Information System
NTP	National Toxicology Program
IARC	International Agency for Research on Cancer
SAEL	Solvay Acceptable Exposure Limit
NIOSH	National Institute for Occupational Safety and Health
NFPA	National Fire Protection Association
HMIS	Hazardous Materials Identification System (Paint & Coating)

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