

KROIL

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name:	KROIL
Product Use:	Penetrant/Lubricant for Industrial Use
Manufacturer:	Kano Laboratories LLC, 1000 E. Thompson Lane Nashville, TN 37211
Emergency Phone Number: Chemtrec	1 (800) 424-9300
Manufacturer Phone Number:	615-833-4101
Website:	www.kroil.com
SDS Date of Preparation:	August, 23, 2022

SECTION 2: HAZARD IDENTIFICATION

GHS / HAZCOM 2012 Classification:

HEALTH	PHYSICAL
Skin Irritation Category 2 Eye Irritation Category 2A Aspiration Hazard Category 1 Skin Sensitization Category 1	Flammable Liquid Category 3

Label Elements

DANGER!

Flammable Liquid and vapor. Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May be fatal if swallowed and enters airways.

Keep away from heat, sparks, open flames, and hot surfaces. No smoking.

Keep container tightly closed.

Ground and bond container and receiving equipment

Use explosion-proof electrical, ventilating and lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing mist or vapors.

Wash thoroughly after handling.

Contaminated clothing must not be allowed out of the workplace.

Wear protective gloves and eye protection.

IF SWALLOWED: Immediately call a POISON CENTER. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. 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 attention.

In case of fire: Use carbon dioxide, dry chemical or foam to extinguish.

Store locked up. Keep cool.

Dispose of contents and container in accordance with local and national regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS#	%
Severely Hydrotreated Petroleum Distillates	64742-52-5	30-50
Low Vapor Pressure (LVP) Aliphatic Hydrocarbon	64742-47-8	20-40
Terpene Alcohols*	Proprietary	7-13
Diisobutyl Ketone (2,6-dimethylheptan-4-one; 4-heptanone, 2,6-dimethyl)	108-83-8	7-13
Diacetone Alcohol (2-hydroxy-2-methyl-4-pentanone; 4-hydroxy-4-methylpentan-2-one)	123-42-2	1 – <3
Isobutyl Alcohol (1-propanol, 2-methyl-; isobutanol)	78-83-1	1 – <3

The exact percentage has been withheld as a trade secret or is a variation in formula.

*HMIRA claim filed 2022-07-26; RN: 03479702

SECTION 4: FIRST AID MEASURES

EYE: Rinse thoroughly with water for at least 15 minutes, while holding the eye lids open to be sure the material is washed out. Get medical attention if irritation develops or persists.

SKIN: Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation or rash occurs. Launder clothing before re-use.

INHALATION: Remove victim to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention.

INGESTION: DO NOT induce vomiting. Keep the victim calm and warm. Never give anything by mouth to an unconscious or drowsy person. Get immediate medical attention.

MOST IMPORTANT SYMPTOMS AND EFFECTS, ACUTE AND DELAYED: May cause eye and skin irritation. May cause an allergic skin reaction. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, nausea and vomiting. Harmful or fatal if swallowed. Aspiration into the lungs during ingestion or vomiting may cause lung damage.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: If swallowed, get immediate medical attention.

SECTION 5: ACCIDENTAL RELEASE MEASURES

SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA: Use carbon dioxide, dry chemical or foam. Water may be ineffective but can be used to cool containers and structures.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Never use welding or cutting torch on or near containers (even empty) because product can ignite explosively. Combustion products may be hazardous: Oxides of carbon, organic compounds, smoke and fumes.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Wear appropriate protective clothing to prevent eye and skin contact including impervious gloves, safety goggles and respirator if needed. Remove all ignition sources such as open flames, spark producing equipment, pilot lights, etc. Ventilate the area with explosion-proof equipment.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Report spills and releases as required to appropriate authorities.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Cover with an inert absorbent material and collect into an appropriate container for disposal.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid breathing vapors, aerosols and mists. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash exposed skin thoroughly with soap and water after use. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas.

OTHER PRECAUTIONS: Do not cut, braze, solder, grind or weld empty containers. Do not reuse containers. Follow all SDS precautions in handling empty containers.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store in a cool, dry, well-ventilated location away from oxidizing agents and other incompatible materials. Keep containers closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME	EXPOSURE LIMITS
Severely Hydrotreated Petroleum Distillates (as mineral oil)	5 mg/m ³ TWA OSHA PEL (as oil mist) 5 mg/m ³ TWA ACGIH TLV (inhalable fraction)
LVP Aliphatic Hydrocarbon	100 ppm TWA Manufacturer Recommended
Proprietary Additive	None Established
Diisobutyl Ketone	50 ppm TWA OSHA PEL 25 ppm TWA ACGIH TLV
Diacetone Alcohol	50 ppm TWA OSHA PEL 50 ppm TWA ACGIH TLV
Isobutyl Alcohol	100 ppm TWA OSHA PEL 50 ppm TWA ACGIH TLV

APPROPRIATE ENGINEERING CONTROLS: Use with adequate general or local exhaust ventilation to maintain concentrations below the occupational exposure limits. Use explosion proof electrical equipment and wiring where required.

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION: If the exposure limits listed above are exceeded, a NIOSH approved respirator with organic vapor cartridges may be used. For higher exposures, a supplied air respirator may be required. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

HAND PROTECTION: Impervious gloves are recommended when needed to avoid skin contact.

EYE PROTECTION: Chemical safety goggles recommended.

SKIN PROTECTION: Impervious clothing as required to prevent skin contact and contamination of personal clothing.

HYGIENE MEASURES: Suitable eye wash and washing facilities should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Slightly reddish liquid	Odor:	Solvent
Odor Threshold:	Not available	pH:	Not available
Melting/Freezing Point:	Not available	Boiling Point/Range:	Not available
Flash Point:	132°F (55.5°C) TOC	Evaporation Rate:	Not available
Flammability (Solid, Gas):	Not applicable	Flammability Limits:	UEL: 10.9% (aliphatic alcohol #2) LEL: 0.6% (LVP Aliphatic Hydrocarbon)
Vapor Pressure:	Not available	Vapor Density:	Not available
Relative Density:	0.8596	Solubilities:	Negligible in Water
Partition Coefficient: (N-Octanol/Water)	Not available	Autoignition Temperature:	Not available
Decomposition Temperature:	Not available	Viscosity:	Not available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: None known.

CHEMICAL STABILITY: Stable under normal conditions of storage or use.

POSSIBILITY OF HAZARDOUS REACTIONS: None known.

CONDITIONS TO AVOID: Avoid heat, sparks, flames and all other sources of ignition.

INCOMPATIBLE MATERIALS: Avoid strong oxidizing agents, reducing agents, acids and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion will produce oxides of carbon, acetone, acrid fumes and smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

EYE: May cause eye irritation with redness, tearing and stinging.

SKIN: May cause irritation with redness, rash, swelling. Prolonged or repeated contact may result in defatting and dermatitis. Repeated skin contact may cause sensitization (allergic skin reaction) in some individuals.

INHALATION: Inhalation of vapors or mists may cause mucous membrane and upper respiratory tract irritation and central nervous system depression. Symptoms may include coughing, wheezing, shortness of breath, headache, dizziness, drowsiness, nausea, fatigue and unconsciousness.

INGESTION: Swallowing may cause gastrointestinal irritation with abdominal pain, nausea, vomiting and diarrhea and central nervous system depression with symptoms including headache, dizziness, intoxication, weakness, nausea, and vomiting. Aspiration into the lungs during ingestion or vomiting may cause lung damage.

CHRONIC HAZARDS: None expected

CARCINOGEN STATUS: None of the components of this product at greater than 0.1% are listed as carcinogens by OSHA, IARC or NTP.

ACUTE TOXICITY: Toxicological testing has not been performed on this product as a mixture.

Severely Hydrotreated Petroleum Distillates: Oral rat LD50 >5000 mg/kg, Dermal rabbit LD50 >2000 mg/kg, Inhalation rat LC50 2.18 mg/L/4hr

LVP Aliphatic Hydrocarbon: Oral rat LD50 >2000 mg/kg, Dermal rat LD50 > 5000 mg/kg, Inhalation rat LC50 > 6.8 mg/L/4 hr.

Proprietary Additive: Oral rat LD50 3200 mg/kg, Dermal rabbit LD50 5000 mg/kg

Diisobutyl Ketone: Oral rat LD50 5233 mg/kg, Dermal rat LD50 > 2000 mg/kg, Inhalation rat LC50 14.5 mg/L/4 hr.

Diacetone Alcohol: Oral rat LD50 3002 mg/kg, Dermal rat LD50 > 1875 mg/kg, Inhalation rat LC50 > 7.6 mg/L/4 hr.

Isobutyl Alcohol: Oral rat LD50 > 2830 mg/kg, Inhalation rat LC50 24.6 mg/L/4 hr, Dermal rabbit LD50 > 2000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: No toxicity data available for the product.

Severely Hydrotreated Petroleum Distillates: 48 hr EC50 daphnia magna >1000 mg/L

LVP Aliphatic Hydrocarbon: 96 hr LC50 *Oncorhynchus mykiss* 2.9 mg/L

Proprietary Ingredient: 48 hr EC50 daphnia magna 17-28 mg/L

Diisobutyl Ketone: 96 hr LC50 *Oncorhynchus mykiss* 30 mg/L, 48 hr EC50 daphnia magna 37.2 mg/L,

Diacetone Alcohol: 96 hr. LC50 *Oryzias latipes* >100 mg/L; 48 hr. EC50 daphnia magna >1000 mg/L; 72 hr.

EC50 *Pseudokirchnerella subcapitata* >1000 mg/L

Isobutyl Alcohol: 96 hr LC50 *Pimephales promelas* 1430 mg/L; 48 hr EC50 daphnia pulex 1100 mg/L; 72 hr

EC50 *Pseudokirchnerella subcapitata* 1799 mg/L

PERSISTENCE AND DEGRADABILITY: Diacetone Alcohol and Isobutyl Alcohol are readily biodegradable.

BIOACCUMULATIVE POTENTIAL: No data available.

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFECTS: None known

SECTION 13: DISPOSAL INFORMATION

DISPOSAL INSTRUCTIONS: Dispose of product in accordance with all local, state/provincial and federal regulations.

CONTAMINATED PACKAGING: Offer rinsed packaging material to local recycling facilities.

SECTION 14: TRANSPORT INFORMATION

	UN NUMBER	PROPER SHIPPING NAME	HAZARD CLASS	PACKING GROUP	ENVIRONMENTAL HAZARD
DOT (IN CONTAINERS <119 GALLONS)		Exempted from Hazmat			
DOT (IN CONTAINERS >119 GALLONS)	UN1993	Flammable liquid, n.o.s. (Aliphatic Alcohols, Petroleum Distillates)	3	PGIII	None
DOT AIR	UN1993	Flammable liquid, n.o.s. (Aliphatic Alcohols, Petroleum Distillates)	3	PGIII	None
TDG (IN CONTAINERS <119 GALLONS)		Not regulated in small means of containment			
TDG (IN CONTAINERS >119 GALLONS)	UN1993	Flammable liquid, n.o.s. (Aliphatic Alcohols, Petroleum Distillates)	3	PGIII	None
IMDG	UN1993	Flammable liquid, n.o.s. (Aliphatic Alcohols, Petroleum Distillates)	3	PGIII	None
IATA	UN1993	Flammable liquid, n.o.s. (Aliphatic Alcohols, Petroleum Distillates)	3	PGIII	None

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.


Special precautions: None known.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

CERCLA 103 Reportable Quantity: This product has a Reportable Quantity (RQ) of 166,666 lbs. (based on the RQ for Isobutyl Alcohol of 5,000 lbs present at <3%). Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

STATE REPORTING REGULATIONS:

California Proposition 65:  **WARNING:** This product can expose you to chemicals including beta-myrcene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

SARA TITLE III:

Hazard Category for Section 311/312: Refer to Section 2 for the OSHA Hazard Classification

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None.

Section 302 Extremely Hazardous Substances (TPQ): None

International Chemical Inventories:

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

Canadian DSL: All of the components of this product are listed on the Canadian Domestic Substances List

SECTION 16: OTHER INFORMATION

HMIS RATINGS: Health – 2 Flammability - 2 Physical Hazard - 0

NFPA RATINGS: Health - 2 Flammability - 2 Instability - 0

SDS REVISION HISTORY: Updated Section 15.

DATE OF PREPARATION: August 23, 2022

DATE OF PREVIOUS REVISION-U.S.: May 10, 2021

DATE OF PREVIOUS REVISION-CANADA: July 19, 2022

The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or the consequences of its use or misuse.