1. IDENTIFICATION

Product Name	**KOVKLEEN 120**
Product Use Description	Membrane Cleaner
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	Infotrac 1-800-535-5053 (Spill, Leak, Fire, Exposure, Accident) +1 (352) 323-3500 (Outside North America)

2 HAZARDS IDENTIFICATION

Emergency Overview

Warning. Irritating to eyes. Corrosive to metals (as aqueous solution). Product dust may cause mild, mechanical irritation. May form combustible dust concentrations in air.

Appearance	White
Physical State	Solid: Powder/Granular
Odor	Odorless

Classification according to 29 CFR 1910, amended to conform to the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS):

Serious Eye Damage / Eye Irritation	Category 2
Hazards Not Otherwise Classified	Combustible Dust

GHS Label Elements

Signal Word: Warning

GHS Hazard Pictogram(s):



Hazard Statement(s): H319 Causes serious eye irritation
May form combustible dust concentrations in air.

Precautionary Statement(s):	Prevention Precautionary Statement(s): Wash hands and exposed skin thoroughly after handling. Wear eye protection. Response Precautionary Statement(s): 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 advice.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation	Substance
Chemical Family	Acids
Molecular Formula	$C_6H_8O_7$

The following component(s) in this product are considered hazardous under applicable OSHA (USA), WHMIS (Canada), and/or NOM-002-SCT-2003 (Mexico) regulations

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
Citric acid	77-92-9	99-100	OSHA / GHS: Eye Irrit. 2; WHMIS: E

4 FIRST AID MEASURES

SKIN

Immediately flush skin with plenty of water, for at least 15 minutes, while removing contaminated clothing and shoes. GET IMMEDIATE MEDICAL ATTENTION.

Place contaminated clothing in closed container for storage until laundered or discarded. If clothing is to be laundered, inform person performing operation of contaminant's hazardous properties. Discard contaminated leather goods.

EYE

Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. GET IMMEDIATE MEDICAL ATTENTION.

INHALATION

Remove to fresh air. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear and give oxygen.

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

INGESTION

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

Never give anything by mouth to an unconscious person. Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis.

Have victim rinse mouth thoroughly with water, then drink 2 to 8 oz. (60 to 240 ml) of water. If vomiting occurs naturally, have the victim lean forward to reduce risk of aspiration. Repeat administration of water. Quickly transport to emergency care facility.

NOTES TO PHYSICIAN

If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

Signs and symptoms of CNS depression, confusion and convulsions should be considered in the assessment

and treatment of victims of exposures.

This product is primarily an irritant and corrosive. Signs and symptoms of CNS depression, confusion and convulsions should be considered in the assessment and treatment of victims of exposures. As a corrosive, give attention to potential complications of esophagus or stomach perforations if ingested. Use of emetics and lavage are contraindicated. Necrosis and associated inflammatory processes occur at about 48 hours, but may extend up to four days. lnitial healing processes occur during the period 4-14 days, but the esophageal wall is weakest during this period.

5 FIRE FIGHTING MEASURES

HAZARDOUS COMBUSTION PRODUCTS

Combustion may produce COx, formic acid, toxic and irritating vapors.

EXTINGUISHING MEDIA

Use dry chemical, alcohol foam, all-purpose AFFF or carbon dioxide to extinguish fire.

BASIC FIRE FIGHTING PROCEDURES

Do not add water to acid. Water applied directly results in evolution of heat and splattering of acid. Acid can react with metals to liberate flammable hydrogen gas, especially when diluted with water. Evacuate area and fight fire from a safe distance.

Use water spray to cool adjacent structures and to protect personnel. When using water spray, use extreme caution! Acid solution is corrosive. Water or foam may cause frothing.

Dust dispersed by water stream in the presence of an ignition source could cause an explosion. Firefighters must wear MSHA/NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

UNUSUAL FIRE & EXPLOSION HAZARDS

Airborne dust in sufficient concentrations when confined and exposed to a sufficient ignition source can explode

Flammability Limits for dust: Lower: 0.28 kg/m3
Upper: 0.29 kg/m3

Flash Point	> 212 oF (100 oC)
Autoignition Temperature	1850 oF (1010 oC) POWDER
Flammability Limits in Air, Lower, % by Volume	SEE ABOVE
Flammability Limits in Air, Upper, % by Volume	SEE ABOVE

6 ACCIDENTAL RELEASE MEASURES

EMERGENCY ACTION

Eliminate and/or shut off ignition sources and keep ignition sources out of the area. Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind. (See Exposure Controls/Personal Protection in Section 8.)

ENVIRONMENTAL PRECAUTIONS

If product is released to the environment, take immediate steps to stop and contain release. Caution should be exercised regarding personnel safety and exposure to the released product. Notify local, provincial and/or federal authorities, if required.

SPILL OR LEAK PROCEDURE

Keep unnecessary people away. Isolate area for at least 25 to 50 meters (80-160 ft.) to preserve public safety. For large spills, consider initial evacuation for at least 300 meters (1000 ft.).

Shovel into a container for later disposal. void cleanup procedures that may result in water pollution. The very fine particles can cause a fire or explosion eliminate all ignition sources.

Do not touch or walk through spilled material.

Avoid excessive generation of dust. If dust is generated, appropriate respiratory, eye and skin protection should be used to protect personnel during clean-up. Avoid contact with water.

Large spills may be neutralized with dilute alkaline solutions of soda ash or lime. See

Exposure Controls/Personal Protection (Section 8).

7 HANDLING & STORAGE

HANDLING

This material should be stored and shipped in plastic or plastic lined containers. Do not use with materials or equipment sensitive to acidic solutions.

Minimize dust generation during handling and contact.

Dusts may become explosive. Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Do not cut, grind, drill, weld in the vicinity of the product or reuse containers unless adequate precautions are taken against these hazards.

Avoid inhaling dust and contact with skin and eyes. Do not eat, drink or smoke in areas of use or storage.

STORAGE

Store in tightly closed containers in a cool, dry, isolated, well-ventilated area away from heat, sources of ignition and incompatibles. Avoid contact with strong oxidizers.

Empty containers may contain product residue. Do not reuse without adequate precautions.

Avoid contact with metals. Avoid excessive heat.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

General or local exhaust ventilation and other forms of engineering controls are the preferred means for controlling exposures.

EYE PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)

Wear chemical safety goggles and face shield. Have eye washing facilities readily available where eye contact can occur.

SKIN PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)

Avoid skin contact with this material. If skin contact is anticipated, protective clothing, including impervious gloves, should be worn.

Additional protection may be necessary to prevent skin contact including use of apron, arm covers, face shield, or boots. Provide safety showers at any location where skin contact can occur.

Use good personal hygiene.

RESPIRATORY PROTECTION: PERSONAL PROTECTION EQUIPMENT (PPE)

A NIOSH/MSHA approved dust respirator should be used as a precautionary measure when airborne contaminants may occur, when there is a potential for uncontrolled release, or when exposure levels are not known.

9 PHYSICAL & CHEMICAL PROPERTIES

ODOR AND APPEARANCE

ODORLESS, PARTIALLY CRYSTALLINE SOLID; TRANSLUCENT OR OPAQUE WHITE

Boiling Point Specific Gravity Melting Point Percent Volatile Vapor Pressure Vapor Density Bulk Density Solubility in

Water Octanol/Water Partn Volatile Organic Pour Point
pH Value Freezing Point Viscosity Evaporation Rate
DECOMPOSES 1.665
307 oF (153 oC) ANHYDROUS, (212oF (100oC) MONOHYDRATE) ND NA ND ND
59.2 G/100G @ 68oF (20oC)
-1.72
ND NA
2.37 1% SOLUTION SEE MELTING POINT NA NA

Molecular Formula	C6H8O7
Molecular Weight	192.12
Chemical Family	ORGANIC ACID
Odor Threshold	ODORLESS

10 STABILITY & REACTIVITY

STABILITY/INCOMPATIBILITY

Incompatible with metal nitrates, alkali carbonates and bicarbonates. Product may decompose upon heating. See precautions under Handling & Storage (Section 7).

HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS

Combustion may produce COx, reactive hydrocarbons and irritating vapors.

11 TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE

Inhalation, ingestion, skin and eye contact.

LD50

LD50: Oral (Rat) > 5000 mg/kg LD50: Dermal (Rat) > 2000 mg/kg

TOXICOLOGICAL DATA

Acute or chronic overexposure to this material or its components may cause systemic toxicity, including adverse effects to the following: skin, eye and respiratory system.

Exposure to components of this material may cause the following specific symptoms, depending on the concentration and duration of exposure: erosion of teeth and headache.

PRE-EXISTING CONDITIONS AGGRAVATED BY EXPOSURE

Pre-existing medical conditions which may be aggravated by exposure include disorders of the skin, eye, respiratory and cardiovascular systems.

12 ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION ND

13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

This product, as supplied, when discarded or disposed of, is a hazardous waste according to Federal Regulations (40 CFR 261) due to corrosivity. . Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Disposal can occur only in properly permitted facilities. Check state and local regulations for any additional requirements as these may be more restrictive than federal laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Disposal of this material must be conducted in compliance with all federal, state and local regulations.

In Canada, wastes should be disposed of according to federal, state, provincial and local regulations.

14 TRANSPORT INFORMATION

BILL OF LADING - BULK (U. S. DOT)

Corrosive Solid, Acidic, Organic, N.O.S. (citric acid), 8, UN 3261, PG II

BILL OF LADING - NON-BULK (U. S. DOT)

Corrosive Solid, Acidic, Organic, N.O.S. (citric acid), 8, UN 3261, PG II

The above description may not cover shipping in all cases, please consult 49 CFR 172.101 for specific shipping information.

15 REGULATORY INFORMATION

FEDERAL REGULATIONS

All components of this product are listed on the TSCA Inventory.

This product, as supplied, contains no hazardous substances regulated under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302), or any extremely hazardous substances regulated under the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355), and thus a release of this product as supplied has no reporting requirements under these regulations. Check state and local regulations for any additional requirements as these may be more restrictive than federal laws and regulations. Failure to report may result in substantial civil and criminal penalties.

This product does not contain toxic chemicals (in excess of the applicable de minimis concentration) that are subject to the annual toxic chemical release reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313 (40 CFR 372).

There may be specific regulations at the local, regional or state/provincial level that pertain to this product.

SARA TITLE III RATINGS

Immediate Hazard:	X	Delayed Hazard:	-	Fire Hazard:	X	Pressure Hazard:	-
Reactivity Hazard:							

STATE REGULATIONS

Based on available information this product does not contain any components or chemicals currently known to the State of California to cause cancer, birth defects or reproductive harm at levels which

would be subject to Proposition 65. Reformulation, use or processing of this product may affect its composition and require re-evaluation.

INTERNATIONAL REGULATIONS

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

WHMIS Classification: D2B, E

All known major components of this product are listed on the Canadian DSL.

WHMIS RATINGS

Compressed Gas	Flammable/Combustible	Oxidizer	Acutely Toxic

Other Toxic Effects	X	Bio Hazardous		Corrosive	X	Dangerously Reactive	

16 OTHER INFORMATION

HAZARDOUS MATERIAL INFORMATION SYSTEM (U.S.A.)

Health	3
Flammability	1
Physical hazards	0

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.

NATIONAL FIRE PROTECTION ASSOCIATION (U.S.A.)



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Prepared By:	HSE Department
Issue Date:	7/30/2025
Version:	7
Precedes:	12/27/2023

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