1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

PRODUCT IDENTIFIER **KOVKLEEN MAX**

GENERAL USE MEMBRANE CLEANER

MANUFACTURER/IMPORTER/SUPPLIER/DISTRIBUTOR INFORMATION

COMPANY NAME John R Hess & Company, Inc.

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Cranston, RI 02910
USA

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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

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Serious Eye Damage/Eye Irritation: Category 1
Acute Oral Toxicity: Category 5
Skin Corrosion/Irritation: Category 1A-1C
Specific Target Organ Toxicity (single exposure): Category 2

LABEL ELEMENTS

PICTOGRAM



SIGNAL WORD: Danger

HAZARD STATEMENTS
H318 - Causes serious eye damage.
H302 – Harmful if swallowed.

H314 – Causes severe skin burns and eye damage.
H371 – May cause damage to organs (kidney, liver, spleen)

PRECAUTIONARY STATEMENTS

P260 – Do not breathe dust/fume/gas/mist/vapours/sspray.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303+361+353 – IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice/ attention.
P310 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell
P330 - Rinse mouth.
P304+340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363 – Wash contaminated clothing before reuse.
P405 – Store locked up.
P501 – Dispose of contents/container in accordance with all federal, state and local regulations.

OTHER HAZARDS

POTENTIAL HEALTH EFFECTS, SKIN

MAY BE IRRITATING. Contact may cause reddening, itching, inflammation, burns, blistering and possibly severe tissue damage.

POTENTIAL HEALTH EFFECTS, INHALATION

Breathing of the mists, vapors or fumes may irritate the nose, throat and lungs. Symptoms may include sore throat, coughing, labored breathing, sneezing and burning sensation, depending on the concentration and duration of exposure.

Overexposure to this material may cause systemic damage including target organ effects listed under "Toxicological Information" (Section 11).

Other specific symptoms of exposure are listed under "Toxicological Information" (Section 1 1).

POTENTIAL HEALTH EFFECTS, INGESTION.

May cause painful irritation and burning of the mouth and throat, painful swallowing, labeled breathing, burns or
perforation of the gastrointestinal tract leading to ulceration and secondary infection. Symptoms may include salivation, pain, nausea, vomiting and diarrhea.

Aspiration into lungs may cause chemical pneumonia and lung damage.

Overexposure to this material may cause systemic damage including target organ effects listed under "Toxicological Information" (Section 11).

Other specific symptoms of exposure see "Toxicological Information" (Section 11)

3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	Concentration*	Exposure Limits / Health Hazards
PHOSPHONIC ACID, (1-HYDROXYETHYLIDENE)BIS-	2809-21-4	5 - 8 %	ND
PHOSPHOROUS ACID, ORTHO	13598-36-2	< 0.25%	ND

*Values do not reflect absolute minimums and maximums; these values are typical which may vary from time to time.
WHMIS Classification: 028, 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

This product is primarily an irritant and corrosive. As a corrosive, give attention to potential complication of esophagus or stomach perforations if ingested. Use of emetics and lavage are contraindicated. Necrosis and associated inflammatory processes peak at about 48 hours, but may extend up to four days. Initial healing processes occur during the period 4 to 14 days, but the esophageal wall is weakest during this period.

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.

5 FIRE FIGHTING MEASURES

HAZARDOUS COMBUSTION PRODUCTS

Combustion may produce COx, POx, phosphine.

EXTINGUISHING MEDIA

Material itself will not burn.

BASIC FIRE FIGHTING PROCEDURES

Evacuate area and fight fire from a safe distance.

Use extinguishing agent suitable for type of surrounding fire. Use water spray to cool adjacent structures and to protect personnel. Shut off source of flow if possible.

Firefighters must wear MSHA/NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

UNUSUAL FIRE & EXPLOSION HAZARDS

None known.

Flash Point	NA (WATER BASE)
Autoignition Temperature	ND
Flammability Limits in Air, Lower, % by Volume	ND
Flammability Limits in Air, Upper, % by Volume	ND

6 ACCIDENTAL RELEASE MEASURES

EMERGENCY ACTION

Keep unnecessary people away. Isolate spill area and keep unnecessary people away.
Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation. Use personal protective equipment.

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.

Methods and material for containment and cleaning up
Collect spillage and collect in suitable container for disposal.

Reference to other sections
Refer to protective measures listed in Sections 8 and 13.

SPILL OR LEAK PROCEDURE

Large spills may be neutralized with dilute alkaline solutions of soda ash or lime. Stop leak when safe to do so. Do not touch or walk through spilled material.

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.

Do not eat, drink or smoke in areas of use or storage.

STORAGE

Avoid contact with strong oxidizers, bases, and metals. Store in tightly closed containers in cool, dry area away from heat and incompatibles.

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

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. Protective glove materials include, but are not limited to natural rubber, neoprene or nitrile.

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 air purifying respirator with an acid vapor cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

9 PHYSICAL & CHEMICAL PROPERTIES

ODOR AND APPEARANCE

Clear, colorless liquid with an acidic odor

Boiling Point	xxxxxx
Melting Point	xxxxxx
Specific Gravity	NA
Percent Volatile	NA
Vapor Pressure	17 mm Hg
Vapor Density	NA
Bulk Density	NA
Solubility in Water	NA
Octanol/Water Partition	NA
Volatile Organic	NA
Pour Point	< 2
pH	NA
Freezing Point	NA
Viscosity	NA
Evaporation Rate	NA
Molecular Formula	NA
Molecular Weight	NA
Chemical Family	Mixture
Odor Threshold	NA

10 STABILITY & REACTIVITY

STABILITY/INCOMPATIBILITY

Incompatible with bases, and oxidizers. See precautions under Handling & Storage (Section 7).
HAZARDOUS REACTIONS/DECOMPOSI TION· PRODUCTS
Combustion may produce COx, POx, acid fumes, phosphine.

11 TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE

Inhalation, ingestion, skin and eye contact.

LD50 Phosphonic acid, (1-hydroxyethylidene)bis- LD50: Skin (rabbit) > 7940 mg/kg
LD50: Oral (rat) > 2,000mg/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, teeth, blood and respiratory system.

Exposure to components of this material may cause the following specific symptoms, depending on the concentration and duration of exposure: chronic obstructive pulmonary disease, erosion of teeth and chest pains. Other symptoms of exposure may include the following: cardiovascular collapse, acidosis, bloody diarrhea, bloody vomit and shock.

PRE-EXISTING CONDITIONS AGGRAVATED BYEXPOSURE

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

12 ECOLOGICAL INFORMATION

ECOTOXICOLOGI CAL INFORMATION

Not toxic to aquatic organisms and not suspected of long-term adverse effects in the aquatic environment.

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 its corrosivity. Under the Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine, at the time of disposal, whether the material is a hazardous waste subject to RCRA.

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. 5. DOT)

Corrosive Liquid, Acidic, Organic, N.O.S. (phosphonic acid (1-hydroxyethylidene)bis-), 8, UN3265, PG II

BILL OF LADING • NON-BULK (U. 5. DOT)
Corrosive Liquid, Acidic, Organic, N.O.S. (phosphonic acid, (1-hydoxyethylidene)bis-), 8, UN3265, 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.

Failure to report may result in substantial civil and criminal penalties. Check state and local regulations for any additional requirements as these may be more restrictive than federal laws and regulations.

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: Reactivity Hazard: X Fire Hazard: Pressure 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.

PENNSYLVANIA - Non-hazardous ingredients present at >3%: Water, CAS # 7732-18-5

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.

16 OTHER INFORMATION

HMIS Rating

Health	*	3
Flammability		0
Physical hazards		0

NFPA RATINGS

Health3	Flammability	0	Reactivity	0	Special Hazards

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