



## Safety Data Sheet (SCALE OFF)

### 1 – PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:**..... SCALE OFF

**CHEMICAL NAME/**

**CLASS/SYNONYMS:**..... Acid Cleaner, Scale Remover

**PRODUCT NUMBER:** ..... SCALE OFF

**UN/NA NUMBER:** ..... 1760

**CHEMICAL FAMILY:** ..... Compounds, Cleaning Liquid

**CAS NUMBER:** ..... Not applicable for mixtures.

**FORMULA:** ..... Proprietary

**COMPANY:**..... **JMN Specialties, Inc.**

1100 Victory Drive – Westwego, Louisiana USA 70094

Phone (504) 341-3749, Fax (504) 341-5868

[www.jmnspecialties.com](http://www.jmnspecialties.com)

**EMERGENCY PHONE:** ..... CALL CHEMTEL: Toll Free US & Canada: (800) 255-3924, Outside  
USA +01-813-248-0585.

**DATE PREPARED:** ..... February 28, 2019

### 2 – HAZARDS IDENTIFICATION

#### GHS HAZARD CLASSIFICATION:

##### Physical Hazards

**Flammable Liquids:**..... . No hazard statement

##### Health Hazards

**Acute Toxicity (Oral):** ..... . Category 4 - Harmful if swallowed, in contact with skin, inhaled

**Skin Corrosion/Irritation:** ..... . Category 1B - Causes severe skin burns and eye damage

**Serious Eye Damage/Irritation:** Category 1 - Causes severe eye damage

**Aspiration Hazard:**..... . Category 1 - May be fatal if swallowed and enters airways

#### WARNING LABEL ITEMS INCLUDING PRECAUTIONARY STATEMENTS:

##### Pictograms:



**SIGNAL WORD:**..... DANGER!

#### GHS HAZARD AND PRECAUTIONARY STATEMENTS:

H312 H332: Harmful in contact with skin or if inhaled

P101+102+103: If medical advice is needed, have product container or label at hand. Keep out of the reach of children. Read label before use.

P202+270+280+281: Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required.



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P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

P501: Dispose of contents/container: Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**TOTAL VOC's:** ..... < 2%

### 3 – COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	PERCENT	CAS NUMBER
Phosphoric Acid	10 - 15	7664-38-2
Glycol Ether EB	1 - 5	111-76-2
Nonionic Surfactant(s)	1 - 5	127087-87-0

### 4 – FIRST-AID MEASURES

**BREATHING (INHALATION):** Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial resuscitation. Keep person warm and at rest. Treat symptomatically and supportively. Seek medical attention immediately. Qualified medical personnel should consider administering oxygen.

**SWALLOWING (INGESTION):** Give large amounts of fresh water or milk immediately. Do not give anything by mouth if person is unconscious or otherwise unable to swallow. If vomiting occurs, keep head below hips to prevent aspiration. Treat symptomatically and supportively. Seek medical attention immediately.

**EYES:** ..... If liquid phosphoric acid or solutions containing phosphoric acid get into the eyes, flush eyes immediately with a directed stream of water for at least 30 minutes while forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. **GET MEDICAL ATTENTION IMMEDIATELY.** Contact lenses should not be worn when working with this chemical.

**SKIN (DERMAL):**..... Remove contaminated clothing and wash affected skin with soap and water. If persistent irritation occurs, obtain medical attention. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop.

**NOTE 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.



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### 5 – FIRE-FIGHTING MEASURES

**GENERAL FIRE HAZARDS: ....** Emergency responders in the danger area should wear bunker gear and self-contained breathing apparatus for fires beyond the incipient stage (29CFR 1910.156). In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Contact with water may generate heat. Isolate damage area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from danger area if it can be done with minimal risk. Fires involving small amounts of combustibles may be smothered with suitable dry chemicals. Use water on combustibles burning but avoid using water directly on acid as it results in evolution of heat and causes splattering.

**AUTOIGNITION TEMP:** No Data Available

**EXTINGUISHING MEDIA: .....** Fires involving small amount of combustibles may be smothered with suitable dry chemical, soda ash, lime, sand or CO<sub>2</sub>. Use water on combustibles burning in vicinity of this material but use care as water applied directly to this acid result in evolution of heat and causes splattering.

#### **SPECIAL FIRE FIGHTING**

**PROCEDURES: .....** Phosphoric Acid at a high concentration can cause very serious damage upon contact. It burns the cornea and can lead to permanent blindness if splashed onto eyes. Spilled product on ground may be slippery. Accordingly, safety precautions should be strictly observed when handling or cleaning it when spilled as the result of a fire.

#### **UNUSUAL FIRE AND**

**EXPLOSION HAZARDS: .....** Containers may explode from internal pressure if confined to fire. Cool with water spray.

### 6 – ACCIDENTAL RELEASE MEASURES

**SPILL PROCEDURES: .....** Wear appropriate personal protective equipment before approaching spill site. For small spills, dilute with water to sewer if allowed by local and state regulations. If unable to wash product with water, absorb with inert material (sand or other approved material) and dispose of in accordance with applicable regulations.

**WASTE DISPOSAL: .....** Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**RCRA STATUS: .....** If discarded in its purchased form, this product is considered a RCRA hazardous waste. It is the responsibility of the product user to determine at the time of disposal, whether a material containing the product should be classified as a hazardous waste. (40CFR261.20-24).



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### 7 – HANDLING and STORAGE

**STORAGE:**

Keep in a tightly closed container, stored in a cool, dry, ventilated area below 44°C (110°F). Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Drum must not be washed out or used for other purposes.

**HANDLING:**..... Avoid contact with eyes, skin and clothing. Do not inhale vapors and fumes. Wash thoroughly after handling. Use only with adequate ventilation. Do not take internally. For industrial use only.

### 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

**OCCUPATIONAL EXPOSURE LIMITS****HAZARDOUS INGREDIENT**

Phosphoric Acid

**PEL**

2 mg/m<sup>3</sup>

**TLV-TWA**

1 mg/m<sup>3</sup>

Glycol Ether EB

40 ppm

40 ppm

Nonionic Surfactant(s)

None Established

None Established

**EXPOSURE CONTROLS:**

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. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**RESPIRATORY PROTECTION:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information. Self-Contained Breathing Apparatus may be required for use in confined or enclosed spaces.



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**PROTECTIVE CLOTHING:** **Eye/face protection:** Wear chemical goggles; face shield (if splashing is possible). **Skin protection:** Chemical resistant, impermeable gloves. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron or chemical suit and chemical resistant boots are recommended.

**ADDITIONAL MEASURES:** ..... Avoid contact with the skin and avoid breathing vapors. Do not eat, drink, or smoke in work area. Wash hands before eating, drinking, or using restroom. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible. Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Safety shower and eye wash should be available close to work areas.

### 9 – PHYSICAL / CHEMICAL PROPERTIES

**BOILING POINT:**..... 225°F (107°C)  
**FREEZING POINT:** ..... 0°F (-17.5°C)  
**FLASHPOINT:**..... Non-flammable  
**UPPER FLAME LIMIT (%):** ..... NA  
**LOWER FLAME LIMIT (%):** ... NA  
**VAPOR PRESSURE:**..... Similar to water  
**VAPOR DENSITY (AIR=1):**..... > 1 (Air = 1)  
**SPECIFIC GRAVITY:** ..... 1.06 - 1.07  
**pH:** ..... 0.5 - 1.5  
**SOLUBILITY IN WATER:**..... 100%  
**VOLATILITY**  
**INCLUDING WATER:** ..... 8.92 pounds per gallon  
**MOLECULAR WEIGHT:** ..... No data available (G/MOLE)  
**EVAPORATION RATE:**..... < 1  
**PHYSICAL STATE:** ..... Liquid  
**COLOR:** ..... Clear  
**ODOR:**..... Acidic

### 10 – STABILITY and REACTIVITY

**STABILITY:** ..... Stable  
**HAZARDOUS DECOMP.:**..... Will not occur  
**INCOMPATIBILITY:** ..... Liberates explosive hydrogen gas when reacting with chlorides and stainless steel. Can react violently with sodium tetrahydroborate. Exothermic reactions with aldehydes, amines, amides, alcohols and glycols, azo-compounds, carbamates, esters, caustics, phenols and cresols, ketones, organophosphates, epoxides, explosives, combustible materials, unsaturated halides, and organic peroxides. phosphoric acid forms flammable gases with sulfides, mercaptans, cyanides and aldehydes. It also forms toxic fumes with cyanides, sulfide, fluorides, organic peroxides, and halogenated organics. Mixtures with nitromethane are explosive.  
**HAZARDOUS REACTIONS:** .... Phosphoric Acid solutions may react vigorously, violently or explosively with many organic and inorganic chemicals.



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### 11 – TOXICOLOGICAL INFORMATION

Phosphoric Acid has produced no genetic changes in standard tests using bacterial cells.

**THRESHOLD LIMIT VALUE:**... 2 mg/m<sup>3</sup> based on Phosphoric Acid in blend.

**OSHA PEL:**..... 2 mg/m<sup>3</sup>

**LISTED CARCINOGEN:**..... Phosphoric Acid has produced no genetic changes in standard tests using bacterial cells.

#### MEDICAL CONDITION

**AGGRAVATED:**..... Overexposure to phosphoric acid mist may cause lung damage and aggravate pulmonary conditions. Contact of phosphoric acid with skin may aggravate diseases such as eczema and contact dermatitis.

#### INFORMATION ON ACUTE TOXICOLOGICAL EFFECTS

##### ORAL

**Product:**..... Corrosive. Causes serious burns of the mouth or perforation of the esophagus or stomach. May be fatal if swallowed.

##### DERMAL

**Product:**..... Corrosive. Splashes on the skin may cause mild to severe irritation and possible chemical burns. Direct contact can be severely irritating to the skin and may result in redness, swelling, burns and possible severe skin damage.

##### INHALATION

**Product:**..... Corrosive. May be harmful or fatal if inhaled. May cause severe irritation and burns of the nose, throat and respiratory tract.

##### REPEATED DOSE TOXICITY

**Product:**..... Phosphoric Acid has produced no genetic changes in standard tests using bacterial cells. No data on other effects on Humans.

##### SKIN CORROSION / IRRITATION

**Product:**..... The results of single exposure tests indicate that these concentrations of phosphoric acid are slightly toxic after skin application. Following a 24-hour exposure, irreversible eye and skin damage occurred at all tested concentrations of phosphoric acid.

##### SERIOUS EYE DAMAGE / IRRITATION

**Product:**..... Corrosive. Direct contact with the liquid or exposure to vapors or mists may cause stinging, tearing, redness, swelling, corneal damage and irreversible eye damage. Splashes in the eyes will cause severe burns. Contact lenses should not be worn when working with this chemical.

##### RESPIRATORY OR SKIN SENSITIZATION

**Product:**..... Repeated exposure of workers to the mist causes chronic conjunctivitis, tracheobronchitis, stomatitis, and dermatitis.

##### MUTAGENICITY

##### IN VITRO

**Product:**..... No Data Available

##### IN VIVO

**Product:**..... No Data Available

##### Specified Substance(s)

Phosphoric Acid

##### Information as provided by manufacturer

No Data Available



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### CARCINOGENICITY

**Product:**..... NOT a suspected Human carcinogen.

### REPRODUCTIVE TOXICITY

**Product:**..... Based on the available test, not expected to cause adverse effects on reproduction.

### SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE

**Product:** **GENERAL:** This product contains acids that are corrosive and can cause severe and painful burns on contact with any part of the body or if taken internally. The mucous membranes of the eyes and the upper respiratory tract are especially susceptible to these irritating effects. **INHALATION:** Inhalation of excessive concentrations of mist or vapor can cause severe irritation of the upper respiratory tract, resulting in coughing, burning of the throat, and a choking sensation. If inhaled deeply, edema of the lungs may occur. **EYES:** Contact with this product, either in gas or in solution, can cause severe irritation and painful burns of the eyes and eyelids. The acid **MUST** be removed quickly with thorough irrigation with water or there may be prolonged or permanent visual impairment or total loss of sight. **SKIN:** Concentrated solutions are destructive to clothing and on contact with skin, can cause severe burns unless promptly washed off. **INGESTION:** This product, when swallowed, can cause severe burns of the mucous membranes of the mouth, esophagus and stomach.

### SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE

**Product:**..... The effects of long-term, low-level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the avoidance of all effects from repetitive acute exposure. This product may aggravate existing eye, skin, and respiratory conditions.

### ASPIRATION HAZARD

**Product:**..... Droplets of the product aspirated into the lungs through ingestion or vomiting may cause chemical pneumonia.

### OTHER ADVERSE EFFECTS

**Product:**..... There is no information available at this time for this product. Studies have shown that bacteria and fungi have the ability to degrade ingredients in this product thereby decreasing their toxicity to fish. However, a spill may produce significant toxicity to aquatic organisms and ecosystems.

## 12 – ECOLOGICAL INFORMATION

### ACUTE TOXICITY

#### FISH

**Product:**..... The product may affect the acidity (pH-factor) in water with risk of harmful effects to fish.

#### AQUATIC INVERTEBRATES

**Product:**..... The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

### CHRONIC TOXICITY

#### FISH

**Product:**..... Not determined. Keep product out of sewers and waterways.

#### AQUATIC INVERTEBRATES

**Product:**..... Not determined. Keep product out of sewers and waterways.

#### TOXICITY TO AQUATIC PLANTS

**Product:**..... Acids cause decreased pH values in the water. A low pH value harms aquatic organisms.



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### PERSISTENCE AND DEGRADABILITY

#### BIODEGRADATION

**Product:**..... No specific biodegradation test data located. While acidity of this material is readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems.

#### BIOLOGICAL OXYGEN DEMAND

**Product:**..... No data available

#### CHEMICAL OXYGEN DEMAND

**Product:**..... No data available

#### BOD / COD RATIO

**Product:**..... No data available

#### BIOACCUMULATIVE POTENTIAL

**Product:**..... No specific biodegradation test data was located in a search of the available scientific literature. It was reported in the literature that while acidity of this material may be reduced readily in natural waters, the phosphate may persist indefinitely.

#### MOBILITY IN SOIL

**Product:**..... Phosphoric acid (solution) is soluble in water and has high mobility in soil. During transport through the soil, phosphoric acid (solution) may dissolve some of the soil material; in particular, the carbonate based materials. The acid will be neutralised to some degree, however, significant amounts of acid are expected to remain for transport down towards the ground water table. Upon reaching the ground water table, the acid will continue to move, now in the direction of the ground water flow. Lime addition may be required to rectify low pH resulting from phosphoric acid (solution) spillages.

#### RESULTS OF PBT AND mPvB ASSESSMENT

**Product:**..... Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria. Not fulfilling vPvB (very persistent, very bioaccumulative) criteria.

#### OTHER ADVERSE EFFECTS

**Product:**..... No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

### 13 –DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** ..... Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**RCRA STATUS:**..... If discarded in its purchased form, this product is considered a RCRA hazardous waste. It is the responsibility of the product user to determine at the time of disposal, whether a material containing the product should be classified as a hazardous waste. (40CFR261.20-24).





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### 14 – TRANSPORTATION INFORMATION

*Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.*



**UN/NA NUMBER:** ..... 1760  
**PROPER SHIPPING NAME:** ..... Corrosive Liquid, n.o.s., Contains (Phosphoric Acid)  
**HAZARD CLASS:** ..... 8  
**PACKAGING GROUP :** ..... II  
**LETTER:** ..... C (Corrosive substances)  
**ENVIRONMENTAL HAZARD:** Phosphoric acid is, with high probability, not acutely harmful to aquatic life and it does not accumulate in the food chain.  
**REPORTABLE QUANTITY:** ..... None

### 15 - REGULATIONS

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System. This SDS complies with 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD). **IMPORTANT:** Read this SDS before handling & disposing of this product. Pass this information on to employees, customers, & users of this product.

#### EPA SRA Title III Chemical Listings:

**TSCA STATUS:** ..... This product is listed on the TSCA inventory. If this product is a blend, all ingredients in the product are listed on the TSCA Inventory List.  
Any impurities present in this product are exempt from listing.  
**SECTION 302:** ..... None  
**SECTION 304:** ..... None  
**SECTION 312:** ..... Yes  
**SARA SECTION 313:** ..... None  
**ACUTE:** ..... Yes  
**CHRONIC:** ..... Yes  
**FIRE:** ..... No  
**PRESSURE:** ..... No  
**REACTIVE:** ..... No  
**CLEAN WATER ACT:** ..... Yes

#### **IMDG – International Marine Dangerous Goods Code**

UN1760, Corrosive Liquid, n.o.s., Contains (Phosphoric Acid), 8, PG II. EmS F-A, S-B. Marine Pollutant: No. Static Accumulator: No.

#### **IATA**

UN1760, Corrosive Liquid, n.o.s., Contains (Phosphoric Acid), 8, PG II.

**DEA Chemical Trafficking Act:**.. No



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### 16 – OTHER INFORMATION

#### HMIS\*

HEALTH		2
FLAMMABILITY		0
REACTIVITY		0
PERSONAL PROTECTION		H

**\*HMIS®HAZARD INDEX: 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard.**

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this SDS and product label must be considered.

ND = No Data, NA = Not Applicable/Not Available, ≤ = Less than or equal to, ≥ = Greater than or equal to

**REVISION STATEMENT:** Changes have been made throughout this Safety Data Sheet (SDS). Please read the entire document. Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) by the Company Health and Risk Assessment Unit.

#### DISCLAIMER:

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, the Company makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving this Safety Data Sheet (SDS) will make their own determination as to its suitability for their intended purposes prior to use. Since the product is within the exclusive control of the user, it is the user's obligation to determine the conditions of safe use of this product. Such conditions should comply with all Federal and State Regulations concerning the Product. It must be recognized that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. **NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.**

\*\*\*This is the last page of this SDS\*\*\*