KULZER
MITSUI CHEMICALS GROUP

SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name:	**Dri-Clave VK-1 General Purpose Cleaner**
Product Code:	50036202, 50036202CN
SDS Manufacturer Number:	D001

Other means of identification:

Synonyms:	Not applicable

Recommended use of the chemical and restrictions on use:

Product Use/Restriction:	General purpose ultrasonic cleaner.

Chemical manufacturer address and telephone number:

Manufacturer Name:	Kulzer, LLC (Mitsui Chemicals Group)
Address:	4315 South Lafayette Blvd. South Bend, Indiana 46614-2517 USA
General Phone Number:	800-431-1785

Emergency phone number:

Emergency Phone Number:	Chemtrec @ 1-800-424-9300

SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

GHS Pictograms:

Signal Word:	DANGER.
GHS Class:	Serious Eye Damage. category 1. Flammable Liquid. Category 3.
Hazard Statements:	H318 - Causes serious eye damage. H226 - Flammable liquid and vapour.
Precautionary Statements:	P210 - Keep away from heat/sparks/open flames/hotsurfaces. — No smoking. P233 - Keep container tightly closed. P240 - Ground/Bond container and receiving equipment. P241 - Use explosion-proof electrical/ventilating/lighting equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353 - 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. P310 - Immediately call a POISON CENTER or doctor/physician. P370+P378 - In case of fire: Use dry chemical, carbon dioxide to extinguish small fires. Use water for large fires. P403+P235 - Store in a well-ventilated place. Keep cool. P501 - Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Hazards not otherwise classified that have been identified during the classification process:

Route of Exposure:	Eyes. Skin. Inhalation. Ingestion.
Potential Health Effects:	
Eye:	Corrosive. Will cause eye burns and permanent tissue damage.
Skin:	Severely irritating; may cause permanent skin damage.
Inhalation:	May cause severe respiratory system irritation.
Ingestion:	Harmful if swallowed. Corrosive to the gastrointestinal tract.
Chronic Health Effects:	Prolonged skin contact causes burns. Repeated or prolonged inhalation may cause toxic effects.
Signs/Symptoms:	Depending on solution concentration, material may be corrosive to skin, mucous membranes and eyes. Vapors may cause respiratory irritation.
Target Organs:	Eyes. Skin. Respiratory system. Digestive system.
Aggravation of Pre-Existing Conditions:	May aggravate pre-existing respiratory disorders, allergy, eczema, or skin conditions.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
Ethoxylated Alcohols Phosphate Ester (C8-10)	68130-47-2	1 - 5 by weight	
Soda Ash Grade 100	497-19-8	1 - 5 by weight	
Isopropyl Alcohol, Technical Grade	67-63-0	1 - 5 by weight	

Notes : The remaining components of this product are non-hazardous or are in a small enough quantity as to not meet regulatory thresholds for disclosure.

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Remove contacts if present and easy to do. Continue rinsing. Get medical attention, if irritation or symptoms of overexposure persists.

Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media: Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.

Special protective equipment and precautions for fire-fighters:

Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA Ratings:

NFPA Health: 3
NFPA Flammability: 1
NFPA Reactivity: 2

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Use proper personal protective equipment as listed in Section 8.

Environmental precautions:

Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.

Methods and materials for containment and cleaning up:

Methods for containment: Contain spills with an inert absorbent material such as soil or sand. Prevent from spreading by covering, diking or other means. Provide ventilation.

Methods for cleanup: Clean up spills immediately observing precautions in the protective equipment section. Provide ventilation.

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

Handling: Corrosive. Use proper personal protective equipment as listed in section 8. Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing. Wash hands thoroughly after handling.

Hygiene Practices: Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

Conditions for safe storage, including any incompatibilities:

Storage:	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances. Keep container tightly closed when not in use. Keep only in the original, corrosive resistant container and store locked up.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Isopropyl Alcohol, Technical Grade :

Guideline ACGIH:	TLV-STEL: 400 ppm TLV-TWA: 200 ppm
Guideline OSHA:	PEL-TWA: 400 ppm

Appropriate engineering controls:

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Individual protection measures:

Eye/Face Protection:	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
Skin Protection Description:	Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.
Respiratory Protection:	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible 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.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
PPE Pictograms:	

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Liquid.
Color:	Transparent blue
Odor:	Mild chemical.
Odor Threshold:	Not determined.
Boiling Point:	213°F (101°C)
Melting Point:	Not determined.
Specific Gravity:	1.06 (Ref: water = 1).
Solubility:	Not determined.
Vapor Density:	Not determined.
Vapor Pressure:	Not determined.
Percent Volatile:	90.5%
Evaporation Rate:	Not determined.
pH:	11.5 - 12.2
Viscosity:	Not determined.
Coefficient of Water/Oil Distribution:	Not determined.
Flammability:	Not determined.
Flash Point:	126 °F (54°C)
Flash Point Method:	Tag Closed Cup (T.C.C).
Lower Flammable/Explosive Limit:	Not determined.
Upper Flammable/Explosive Limit:	Not determined.
Auto Ignition Temperature:	Not determined.
Oxidizing Properties:	Not determined.
VOC Content:	Not determined.

SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:

Chemical Stability:	Stable under normal temperatures and pressures.

Possibility of hazardous reactions:

Hazardous Polymerization: Will not occur.

Conditions To Avoid:

Conditions to Avoid: Avoid contact with incompatible materials.

Incompatible Materials:

Incompatible Materials: Avoid contact with strong acids, metals, such as aluminum and tin.

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Soda Ash Grade 100 :

Eye: Administration into the eye - Rabbit Standard Draize test: 100 mg/24H [Moderate]
Administration into the eye - Rabbit Rinsed with water: 100 mg/30S [Mild]
Administration into the eye - Rabbit Standard Draize test: 50 mg [Severe] (RTECS)

Inhalation: Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 2300 mg/m3/2H [Lungs, Thorax, or Respiration - Dyspnea Gastrointestinal - Other changes] (RTECS)

Ingestion: Oral - Rat LD50 - Lethal dose, 50 percent kill: 4090 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

Isopropyl Alcohol, Technical Grade :

Eye: Administration into the eye - Rabbit Standard Draize test: 100 mg [Severe]
Administration into the eye - Rabbit Standard Draize test: 10 mg [Moderate]
Administration into the eye - Rabbit Standard Draize test: 100 mg/24H [Moderate] (RTECS)

Skin: Administration onto the skin - Rabbit LD50 - Lethal dose, 50 percent kill: 12800 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)

Inhalation: Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 16000 ppm/8H [Details of toxic effects not reported other than lethal dose value]
Inhalation - Rat LC50 - Lethal concentration, 50 percent kill: 72600 mg/m3 [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes] (RTECS)

Ingestion: Oral - Rat LD50 - Lethal dose, 50 percent kill: 5045 mg/kg [Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity)]
Oral - Rat LD50 - Lethal dose, 50 percent kill: 5000 mg/kg [Behavioral - General anesthetic] (RTECS)

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity: No ecotoxicity data was found for the product.

Environmental Fate: No environmental information found for this product.

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name: Not regulated

DOT UN Number: Not Applicable

DOT Hazard Class: Not Applicable

Notes : The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment.

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

Ethoxylated Alcohols Phosphate Ester (C8-10) :

TSCA Inventory Status: Listed

Canada DSL: Listed

Soda Ash Grade 100 :

TSCA Inventory Status: Listed

Canada DSL:	Listed

Isopropyl Alcohol, Technical Grade :

TSCA Inventory Status:	Listed
Section 313:	EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
Canada DSL:	Listed

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard:	3
HMIS Fire Hazard:	1
HMIS Reactivity:	2
HMIS Personal Protection:	X

Health Hazard	**3**
Fire Hazard	**1**
Reactivity	**2**
Personal Protection	**X**

Other Information:

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). The customer is responsible for determining the appropriate PPE to be used for the task.
The National Fire Protection Association (NFPA) rating system is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. NFPA hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. NFPA hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. The NFPA system is intended to be interpreted and applied only by properly trained individuals to identify fire, health, and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

SDS Revision Date:	March 28, 2017
SDS Revision Notes:	Supercedes MSDS 10/19/15
SDS Author:	Regulatory department