Material Safety Data Sheet

MSDS No. D001

Date of Review: 2/15/2010 **Supersedes MSDS dated:** 2/8/07

SECTION 1 - PRODUCT IDENTIFICATION

Product Name: VK-1 General Purpose Cleaner

Product Code: 50036202, 50036202CN

Synonyms: NA

Manufacturer: Heraeus Kulzer, LLC

300 Heraeus Way

South Bend, IN 46614-2517 Phone: 800-431-1785 FAX: 800-522-1545

Hours: 8:00 A.M. - 4:30 P.M.

After Hours: Chemtrec @ 1-800-424-9300

SECTION 2 - CHEMICAL COMPOSITION / HAZARDOUS INGREDIENTS

MATERIALS	CAS#	HAZARD	% WT.	OSHA PEL	ACGIH TLV
Isopropyl Alcohol Potassium Hydroxide	67-63-0 1310-58-3	Flammable Corrosive	3 - 5 1 - 3	400 ppm 2 mg/m ³ Ceiling	400 ppm 2 mg/m ³

SECTION 3 - HAZARDS IDENTIFICATION

*** POTENTIAL HEALTH EFFECTS ***

Target Organs: Eyes, Skin, Respiratory System, Accidental Ingestion

Signs and Symptoms of Short-Term (Acute) Exposure: Prolonged exposure to alcohol vapors may cause dizziness, headaches, and nausea.

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Effects of Long-Term (Chronic) Exposure: Skin irritation; prolonged exposure to alcohol vapors may cause dizziness, headaches and nausea.

Medical Conditions Aggravated by Exposure: None Known

Hygienic Practices: Do not place in unlabelled container. Wash hands after use.

Carcinogenicity: IARC, NTP, and OSHA do not list any of the ingredients as a carcinogen.

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SECTION 4 - FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Eye Contact: Remove contact lenses. Flush eyes with plenty of water at least 15 minutes. If irritation

occurs, contact physician.

Skin Contact: Immediately wash with plenty of water and remove contaminated clothing. **Ingestion:** If swallowed, seek medical advice immediately. Do not induce vomiting.

SECTION 5 - FIRE-FIGHTING MEASURES

Fire Hazards/Conditions of Flammability: None Known

Flash Point (Method): 126°F TCC (52.2°C TCC)

Lower Flammable Limit (% by volume): Not Applicable **Upper Flammable Limit (% by volume):** Not Applicable

Suitable Extinguishing Media: Water spray, Dry chemical, Carbon Dioxide

Special Fire-Fighting Procedures/Equipment: Do not release runoff from fire control methods to sewers or waterways. Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions: Not Applicable **Environmental Precautions:** Not Applicable

Spill/Leak Procedures: Spills should be taken up with suitable absorbent and placed in containers. Spill

area can be washed with water. Collect wash water for approved disposal.

SECTION 7 - HANDLING AND STORAGE

Handling and Storing Precautions: Do not allow material to freeze.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation and Engineering Controls: None Known

Respiratory Protection: None Known

Protective Gloves: Wear gloves to prevent prolonged or repeated skin contact.

Eye Protection: Wear protective eyeglasses or chemical safety goggles, per OSHA eye and face protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye

protection must be worn instead of, or in conjunction with contact lenses.

Other Protective Equipment: None Known

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical Form, Color and Odor: Transparent blue liquid

Odor Threshold: Mild

pH: 11.5 - 12.2 **Boiling Point:** 213°F

Melting/Freezing Point: Not Applicable

Vapor Pressure: Not Applicable **Solubility in Water:** Very soluble

Coefficient of Oil/Water Distribution: Not Applicable Specific Gravity or Relative Density (water =1): 1.06

Vapor Density (air =1): Not Applicable

Volatile Organic Compounds (VOC's): Not Applicable

% Volatile by Volume: 90.5% **Evaporation Rate:** Not Applicable

SECTION 10 - STABILITY AND REACTIVITY

Stability and Reactivity: Stable

Conditions to Avoid: Avoid contact with strong acids.

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

Hazardous Decomposition Products: Combustible. Harmful if inhaled. May cause eye and skin

irritation.

Hazardous Polymerization: Will Not Occur

SECTION 11 - TOXICOLOGICAL INFORMATION

Routes of Exposure: Eyes, Skin, Inhalation of Vapors

Toxicological Data: Isopropyl Alcohol LD₅₀ (Oral Rat) / 5840 mg/kg; Potassium Hydroxide LD₅₀ (Oral

Rat) - 365 mg/kg

Teratogenicity, Mutagenicity, Other Reproductive Effects: No Data Available

Sensitization to Material: No Data Available

SECTION 12 - ECOLOGICAL INFORMATION

General Notes: None Known

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal: Follow applicable Federal, State and Local regulations.

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SECTION 14 - TRANSPORTATION INFORMATION

Transportation of Dangerous Goods (TDG) Information: Not Applicable

Shipping Description:

49 CFR Information: Not Applicable

Shipping Description:

International Dangerous Goods Information: Not Applicable

IMO: ICAO:

Other Information: Not Applicable

SECTION 15 - REGULATORY INFORMATION

WHMIS Information: Not Applicable

WHMIS Classification: D2 material causing other toxic effects; B - flammable

CEPA Information: None Known

TSCA Information: Components of this product is on the TSCA list.

SARA Title III: Isopropyl Alcohol is regulated as a toxic chemical under Section 3B of Title III of the

Superfund Amendments and Reauthorization Act of 1986 and 40 CFR parts 372.

SECTION 16 - OTHER INFORMATION

Prepared By: Regulatory Department

Additional Notes or References:

ACGIH: American Conference of Governmental Industrial Hygienists

IARC: International Agency for Research on Cancer

NIOSH: National Institute for Occupational Safety and Health WHMIS: Workplace Hazardous Materials Information System

Revision: Noted

We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of the product are not within the control of Heraeus Kulzer, Inc., it is the user's obligation to determine the conditions of safe use of the product.