

# SAFETY DATA SHEET



KALO

## SECTION 1: IDENTIFICATION

Company Information	KALO, Inc., 13200 Metcalf Ave., Ste. 250, Overland Park, KS 66213
Phone Numbers	800-255-5196 / 913-491-9146 FAX
Website	www.kalo.com
Product Identity	VAILAR
Reference/Item Number	VAIL01, VAIL02, VAIL30, VAIL55, VAIL265
Intended Use	Refer to package label.
Application Method	Refer to package label.
24 HOUR EMERGENCY NUMBER/CHEMTREC (USA)	1-800-424-9300
POISON CONTROL CENTER (USA)	1-800-222-1212

## SECTION 2: HAZARDS IDENTIFICATION

### HAZARD COMMUNICATION STANDARD (HCS) PICTOGRAM(S) AND SIGNAL WORD(S)



### WARNING

Acute Tox. 5:	H303: May be harmful if swallowed. (Not adopted by U.S. OSHA.)
Skin Irrit. 2:	H315: Causes skin irritation.
Eye Dam. 2A:	H319: Causes serious eye irritation.
STOT SE 3:	H335: May cause respiratory irritation.
Prevention:	P280: Wear protective gloves and eye/face protection. P264: Wash thoroughly after handling.
Response:	P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do; continue rinsing. P337+313: If eye irritation persists, get medical advice/attention. P302+352: IF ON SKIN: Wash with plenty of soap and water. P332+313: If skin irritation occurs, get medical advice/attention. P304+312: IF INHALED: Call a poison center or doctor/physician if you feel unwell. P340: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P362: Take off contaminated clothing and wash before reusing. P321: SPECIFIC TREATMENT: See information on product label or SDS.
Storage:	No GHS storage statements.
Disposal:	P501: Dispose of contents/container in accordance with local/national regulations.

# SAFETY DATA SHEET



## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

**Ingredient/Chemical Designations:** Proprietary Surfactant Blend

**CAS No.:** Proprietary

**Weight %:** 10 -25

**Notes:** Substance classified with a health or environmental hazard.

**Ingredient/Chemical Designations:** Proprietary Solvent

**CAS No.:** Proprietary

**Weight %:** 1.0 - 10

**Notes:** Substance classified with a health or environmental hazard.

**Ingredient/Chemical Designations:** Proprietary Surfactant

**CAS No.:** Proprietary

**Weight %:** 1.0 - 10

**Notes:** Substance classified with a health or environmental hazard.

**Ingredient/Chemical Designations:** Proprietary Surfactant

**CAS No.:** Proprietary

**Weight %:** 1.0 - 10

**Notes:** Substance classified with a health or environmental hazard.

**Ingredient/Chemical Designations:** Proprietary Solvent

**CAS No.:** Proprietary

**Weight %:** 1.0 - 10

**Notes:** Substance classified with a health or environmental hazard. Substance with a workplace exposure limit.

## SECTION 4: FIRST AID MEASURES

### [DESCRIPTIONS]

**General:** In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

**Inhalation:** Remove to fresh air. Keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

**Eyes:** Irrigate copiously with clean fresh water for at least 10 minutes, holding the eyelids apart and seek medical attention.

**Skin:** Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Do NOT use solvents or thinners.

**Ingestion:** If accidentally swallowed, obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

### [MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED]

**Overview:** No adverse symptoms or effects anticipated under normal handling conditions. See Section 2 for further details.

**Inhalation:** May cause respiratory irritation.

**Eyes:** Causes serious eye irritation.

**Skin:** Causes skin irritation.

**Ingestion:** May be harmful if swallowed. (Not adopted by U.S. OSHA.)

# SAFETY DATA SHEET



## SECTION 5: FIREFIGHTING MEASURES

**Extinguishing Media:** Alcohol resistant foam, CO<sub>2</sub>, powder, or water spray. Do not use water jet.

**Special Hazards:** Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of sulfur, nitrogen or phosphorus may also be formed. Never use welding or cutting torches on or near container, even if empty. Avoid breathing dust, fume, gas, mist, vapors and spray.

**Advice For Firefighters:** Evacuate area. Prevent contamination from run-off of adjacent areas, streams, drinking water and sewers. Do not flush down sewers or other drainage systems. Exposed firefighters must wear standard protective equipment and in enclosed areas self-contained breathing apparatus. Use water-spray to cool fire-exposed surfaces and personnel.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Precautions/Procedures:** Keep all sources of ignition away from spill/release. In case of a major spill or spillage in a confined space evacuate the area and check vapor levels.

**Environmental Precautions:** Do not allow spills to enter drains or water courses.

**Methods and Material For Containment and Cleaning Up:** Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in Section 8. Contain and absorb spillage with non-combustible materials (e.g. sand/earth/vermiculite). Place in closed containers outside buildings and dispose of according to the Waste Regulations (see Section 13). Clean, preferably with a detergent. Do not use solvents. Do not allow spills to enter drains or water courses. If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams, or lakes, the Environmental Protection Agency should also be informed.

## SECTION 7: HANDLING AND STORAGE

**Precautions For Safe Handling:** Do not get in eyes, on skin, or on clothing. Do not breathe vapors or mists. Keep container closed. Use only with adequate ventilation. Use good personal hygiene practices. Wash hands before eating, drinking, smoking. Remove contaminated clothing and wash before reuse. Destroy contaminated belts and shoes and other items that cannot be decontaminated. Have eyewash accessible to use in handling area. See Section 2 for further details.

**Conditions For Safe Storage:** Store in tightly closed containers in dry, well-ventilated area, away from excessive heat and incompatibles. See Section 2 for further details.

**Incompatible Materials:** Oxidizing agents.

**Specific End Use(s):** See product label.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Data:** This product contains the following ingredient with established limits for exposure under OSHA, ACGIH and/or NIOSH.

CAS No.	Ingredient	Source	Value
Proprietary	Proprietary Surfactant Blend	OSHA	TWA: 15mg/m <sup>3</sup> (total) / TWA: 5mg/m <sup>3</sup> (resp)
		ACGIH	TWA: 3mg/m <sup>3</sup> (respirable) / TWA: 10mg/m <sup>3</sup> (mist)
		NIOSH	No Established RELs
Proprietary	Proprietary Surfactant	OSHA	TWA: 3 ppm (6mg/m <sup>3</sup> )
		ACGIH	TWA: 3ppm / STEL: 6ppm
		NIOSH	TWA: 3ppm (8mg/m <sup>3</sup> ) / STEL: 6ppm (15 mg/m <sup>3</sup> )
Proprietary	Proprietary Solvent	OSHA	No Established Limit
		ACGIH	Ceiling: 2mg/m <sup>3</sup>
		NIOSH	Ceiling: 2mg/m <sup>3</sup>

# SAFETY DATA SHEET



## CONT...SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Carcinogen Data:** This product contains the following ingredients (at greater than 0.1%) that are suspected of being or known to be a carcinogen under OSHA, NTP or IARC.

CAS No.	Ingredient	Source	Value
Proprietary	Proprietary Surfactant Blend	OSHA	Select Carcinogen: No
		NTP	Known: No / Suspected: No
		IARC	Group 1: No / Group 2a: No / Group 2b: No / Group 3: No / Group 4: No
Proprietary	Proprietary Surfactant	OSHA	Select Carcinogen: No
		NTP	Known: No / Suspected: No
		IARC	Group 1: No / Group 2a: No / Group 2b: No / Group 3: No / Group 4: No
Proprietary	Proprietary Solvent	OSHA	Select Carcinogen: No
		NTP	Known: No / Suspected: No
		IARC	Group 1: No / Group 2a: No / Group 2b: No / Group 3: No / Group 4: No

### [EXPOSURE CONTROLS]

- Respiratory:** If workers are exposed to concentrations above the exposure limit, they must use the appropriate certified respirators.
- Eyes:** Wear safety eyewear (e.g. safety spectacles/goggles/visors) to protect against the splash of liquids.
- Skin:** Overalls, which cover the body, arms, and legs, should be worn. Skin should not be exposed. All parts of the body should be washed after contact.
- Engineering Controls:** Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates, and any vapor below occupational exposure limits, suitable respiratory protection must be worn.
- Other Work Practices:** See product label.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear Yellow Liquid	<b>Initial Boiling Point/Range:</b>	Not Measured
<b>Odor:</b>	Not Measured	<b>Melting Point/Range:</b>	Not Measured
<b>Odor Threshold:</b>	Not Measured	<b>Flammability (Solid, Gas):</b>	Not Measured
<b>pH (1% dilution, distilled H2O):</b>	3.0 - 3.7	<b>Upper Flammability/Explosive Limits:</b>	Not Measured
<b>Specific Gravity:</b>	1.13 - 1.19	<b>Lower Flammability/Explosive Limits:</b>	Not Measured
<b>Flashpoint and Method:</b>	>200°F (>93°C)	<b>Decomposition Temperature:</b>	Not Measured
<b>Solubility in Water:</b>	Not Measured	<b>Auto-Ignition Temperature:</b>	Not Measured
<b>Viscosity (dynamic):</b>	Not Measured	<b>Volatility:</b>	Not Measured
<b>Viscosity (kinematic):</b>	Not Measured	<b>Molecular Weight:</b>	Not Measured
<b>VOC%:</b>	Not Measured	<b>Oxidizing Properties:</b>	Not Measured
<b>Vapor Pressure (Pa):</b>	Not Measured	<b>Partition Co-Efficient n-octanol/water (Log Pow):</b>	Not Measured
<b>Vapor Density (air=1):</b>	Not Measured	<b>Evaporation Rate (Butyl Acetate=1):</b>	Not Measured
<b>Density (water=1):</b>	Not Measured	<b>Surface Tension:</b>	Not Measured
<b>Density (liquid):</b>	Not Measured	<b>Particle Size:</b>	Not Measured
<b>Freezing Point:</b>	Not Measured	<b>Other:</b>	No other relevant information.

# SAFETY DATA SHEET



KALO

## SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Not chemically reactive.
Chemical Stability:	Stable under normal ambient and anticipated conditions of use.
Hazardous Reactions:	Hazardous reactions not anticipated.
Conditions To Avoid:	Extended exposure to high temperatures can cause decomposition. Avoid all possible sources of ignition.
Incompatible Materials:	Oxidizing agents.
Hazardous Decomposition Products:	Not anticipated under normal conditions of use.

## SECTION 11: TOXICOLOGICAL INFORMATION

[ACUTE TOXICITY ESTIMATE]		
Ingredients:	Proprietary Blend of Surfactants and Solvents	
Oral LD50mg/kg:	>2,000.00 / Category: NA	
Skin LD50mg/kg:	>2,000.00 / Category: NA	
Inhalation Vapor/Dust/Mist LC50, mg/L/4hr:	No Data Available	
Inhalation Gas, LC50, ppm	No Data Available	
ITEM	HAZARD	CATEGORY
Acute Toxicity (mouth):	May be harmful if swallowed. (Not adopted by U.S. OSHA.)	5
Acute Toxicity (skin):	Not Applicable	--
Acute Toxicity (inhalation):	Not Applicable	--
Skin Corrosion/Irritation:	Causes skin irritation.	2
Eye Damage/Irritation:	Causes serious eye irritation.	2A
Sensitization (respiratory):	Not Applicable	--
Sensitization (skin):	Not Applicable	--
Germ Toxicity:	Not Applicable	--
Carcinogenicity:	Not Applicable	--
Reproductive Toxicity:	Not Applicable	--
Specific Target Organ Systemic Toxicity-Single Exposure:	Not Applicable	--
Specific Target Organ Systemic Toxicity-Repeated Exposure:	May cause respiratory irritation.	3
Aspiration Hazard:	Not Applicable	--

## SECTION 12: ECOLOGICAL INFORMATION

Toxicity:	No additional information provided for this product.
Persistence and Degradability:	There is no data available on the preparation itself.
Bioaccumulative Potential:	Not measured.
Mobility In Soil:	No data available.
Results of PBT and vPvB Assess:	This product contains no PBT/vPvB chemicals.
Other Adverse Effects:	No data available.

# SAFETY DATA SHEET



## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Treatment Methods:**

Do not allow into drains or water courses. Wastes and emptied containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act. Using information provided in this data sheet advice should be obtained from the Waste Regulation Authority, whether the special waste regulations apply. Dispose of contents in accordance with local and national regulations.

## SECTION 14: TRANSPORT INFORMATION

**DOT Proper Shipping Name:** Not Regulated

**DOT Hazard Class:** Not Applicable

**DOT Packing Group:** Not Applicable

**DOT Label:** None

**IMDG Proper Shipping Name:** Not Regulated

**IMDG Hazard Class:** Not Applicable

**IMDG Packing Group:** Not Applicable

**IMDG Marine Pollutant:** No

**ICAO/IATA:** See Bill of Lading

## SECTION 15: REGULATORY INFORMATION

**Regulatory Overview:** The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

**Toxic Substance Control Act (TSCA):** All ingredients of this product are listed on the TSCA inventory, or are not required to be listed on the TSCA inventory.

**WHMIS Classification:** Not regulated. This product contains no endocrine disrupting chemicals.

**U.S. EPA Tier II Hazards:** Fire=NO / Sudden Release of Pressure=NO / Reactive=NO / Immediate (acute)=YES / Delayed (chronic)=NO

**EPCRA 302–Extremely Hazardous (0.1%):** To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**EPCRA 311/312–Chemicals and RQs (>0.1%):** To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**EPCRA 313–Toxic Chemicals (>0.1%):** To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65–Carcinogens (>0.0%):** Acetaldehyde / Ethylene Oxide / 1,4-dioxane

**Proposition 65–Developmental Toxins (>0.0%):** To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65–Female Repro Toxins (>0.0%):** Ethylene Oxide

**Proposition 65–Male Repro Toxins (>0.0%):** Ethylene Oxide

**N.J. RTK Substances (>1%):** Ethanolamine / Glycerol / Potassium Hydroxide / Propylene Glycol

**PENN RTK Substances (>1%):** Ethanolamine / Glycerol / Potassium Hydroxide / Propylene Glycol

## SECTION 16: OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. Company accepts no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations and orders.