MSDS NO:BCS80972 VERSION:001 2011-08-12



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COMPANY IDENTITY: Univar DATE: 08/04/11 PRODUCT IDENTITY: BLEND SUPER-K CIP PAGE: 1 OF 8

SAFETY DATA SHEET

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.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: BLEND SUPER-K CIP

SDS NUMBER: BCS80972 NEW MSDS DATE: 08/04/2011 COMPANY IDENTITY: Univar

COMPANY ADDRESS: 17425 NE Union Hill Road

COMPANY CITY: Redmond, WA 98052 COMPANY PHONE: 1-425-889-3400

SECTION 2. HAZARDS IDENTIFICATION

DANGER!!

EXPOSURE PREVENTION: AVOID ALL CONTACT!

RISK STATEMENTS:

R35 Causes severe burns.

R36/37/38 Irritating to eyes, repiratory system, and skin.

SAFETY STATEMENTS:

S1/2 Keep locked up and out of the reach of children.

S24/25 Avoid contact with skin and eyes.

Wear suitable protective clothing, gloves and eye/face protection. In case of contact with eyes, rinse immediately with S36/37/39

S26

plenty of water and seek medical advice.

In case of accident, or if you feel unwell, seek medical advice **S45**

immediately. (Show the label where possible).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	WT %
Potassium Hydroxide	1310-58-3	-	70-90
Potassium Polyphosphate	7320-34-5	-	< 10
Sodium Metasilicate	6834-92-0	-	< 10

Trace components: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

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SECTION 4. FIRST AID MEASURES

EYE CONTACT:

If this product enters the eyes, open victim's eyes while under gently running water. Use sufficient force to open eyelides. Have victim "roll" eyes. $\underline{\text{Minimum}}$ flushing is for 15 minutes. Victim must seek immediate medical attention.

SKIN CONTACT:

If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

INHALATION:

After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR).

SWALLOWING:

Rinse mouth. Give plenty of water to drink. Do NOT induce vomiting. GET MEDICAL ATTENTION IMMEDIATELY. Do NOT give liquids to an unconscious or convulsing person.

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of label and SDS to physician or health professional with victim.

SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSION PREVENTIVE MEASURES

Isolate from acids, extreme heat and open flame.

In case of fire in surroundings, carbon dioxide, foam, dry chemical, Halon, or any "ABC" Class extinguisher.

SPECIAL FIRE FIGHTING PROCEDURES

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES

Noncombustible.

Isolate from acids. Closed containers may burst if exposed to extreme heat. Applying to hot surfaces requires special precautions. Run-off from fire control can cause pollution.

SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

PERSONAL PROTECTIVE EQUIPMENT

The proper personal protective equipment for incidental releases (such as: 1 Liter of the product released in a well-ventilated area), use impermeable gloves (triple-gloves (rubber gloves and nitrile gloves, over latex gloves), goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, specific for the material handled, chemically resistant suit and boots, and hard hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with latest OSHA and/or ANSI recommendations.

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SECTION 6. ACCIDENTAL RELEASE MEASURES (CONTINUED)

ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

CONTAINMENT AND CLEAN-UP MEASURES:

Absorb spilled liquid with polypads or other suitable absorbent materials. If necessary, neutralize using suitable buffering material, (acid with soda ash or base with phosphoric acid), and test area with litmus paper to confirm neutralization. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residue in suitable containers. dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13 - Disposal Considerations).

SECTION 7. HANDLING AND STORAGE

WORK PRACTICES AND HYGIENE PRACTICES:

As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing dusts generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

HANDLING

Wear full face shield, gloves & full protective clothing when opening or handling. All employees who handle this material should be trained to handle it safely. Never add water to this product, always add product, with constant stirring, slowly to surface of lukewarm water, to assure product is being completely dissolved as it is added. Never add more product than can be absorbed by solution, to prevent splattering of solution. Use in a well-ventilated location.

STORAGE

Keep separated from strong oxidants, strong acids, metals, food & feedstuffs. Keep dry. Do not store above 49 C/120 F, away from intense heat. Keep container tightly closed and upright when not in use to prevent leakage. Use fiberboard drums in good condition to store this product. Protect from direct contact with excessive moisture. Do not drop onto, or slide across, sharp objects. Do not store on side. Avoid creasing or impacting of side walls. Open fiberboard drums slowly, on a stable surface. Containers of this product must be properly labeled. Store fiberboard drums away from incompatible chemicals (See Section 10, Stability and Reactivity). Keep drums tightly closed when not in use. Storage areas should be made of fire-resistant materials. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Empty containers may contain residual material; therefore, empty containers should be handled with care.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Follow practices indicated in Section 6 (Accidental Release Measures). If necessary, make certain equpment is locked and tagged-out safely.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
Potassium Hydroxide	1310-58-3	-	None Known	None Known
Potassium Polyphosphate	7320-34-5	-	None Known	None Known
Sodium Metasilicate	6834-92-0	-	None Known	None Known
MATERIAL	CAS# EIN	IECS# CE	ILING IDHL	НАР

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

1310-58-3

RESPIRATORY EXPOSURE CONTROLS

Potassium Hydroxide

Maintain airborne contaminant concentrations below exposure limits given above. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, European Standard EN 149, or applicable State regulations. If adequate ventilation is not available or there is potential for airborne exposure above the exposure limits, a respirator may be worn up to the respirator exposure limitations, check with respirator equipment manufacturer's recommendations/limitations. For a higher level of protection, use positive pressure supplied air respiration protection or Self Contained Breathing Apparatus or if oxygen levels are below 19.5% or are unknown.

2 mg/m3

None Known

No

EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS
Positive pressure, full-face piece Self Contained Breathing Apparatus; or positive
pressure, full-face piece Salf Contained Breathing Apparatus with an auxilliary positive
pressure Self Contained Breathing Apparatus.

VENTILATION

LOCAL EXHAUST: Necessary MECHANICAL (GENERAL): Necessary SPECIAL: None OTHER: None Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

EYE PROTECTION:

Splash goggles or safety glasses. Face-shields are recommended when the operation can generate splashes, sprays or mists.

HAND PROTECTION:

Wear appropriate impervious gloves for routine industrial use. Use impervious triple gloves for spill response, as stated in Section 6 of this SDS (Accidental Release Measures).

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

BODY PROTECTION:

Use body protection appropriate for task. Cover-all, rubber aprons, or chemical protective clothing made from impervious materials are generally acceptable, depending on the task.

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at end of each workshift & before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

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SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

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APPEARANCE:
                                                             Granular, Off-white Solid
ODOR:
                                                            Mild odor
ODOR THRESHOLD:
                                                            Not Available
pH (Neutrality):
                                                             12 - 14 (1% solution)
MELTING POINT/FREEZING POINT:
                                                            Not Available
BOILING POINT:
                                                            Decomposes
FLASH POINT (TEST METHOD):
                                                            Not Applicable
EVAPORATION RATE (n-BUTYL ACETATE=1):
                                                            Not Applicable
FLAMMABILITY CLASSIFICATION:
                                                            Non-Combustible
LOWER FLAMMABLE LIMIT IN AIR (% by vol): UPPER FLAMMABLE LIMIT IN AIR (% by vol):
                                                            Not Applicable
                                                            Not Available
VAPOR PRESSURE (mm of Hg)@20 C
VAPOR DENSITY (air=1):
                                                            Not Available
                                                            Not Available
GRAVITY @ 68/68F / 20/20C:
SPECIFIC GRAVITY (Water=1):
                                                            > 2
   POUNDS/GALLON:
                                                            > 16.7
WATER SOLUBILITY:
                                                            Complete
PARTITION COEFFICIENT (n-Octane/Water):
                                                            Not Available
AUTO IGNITION TEMPERATURE:
                                                            Not Applicable
DECOMPOSITION TEMPERATURE:
                                                            Not Available
VOC'S (>0.44 Lbs/Sq In):
TOTAL VOC'S (TVOC)*:
NONEXEMPT VOC'S (CVOC)*:
                                                            0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
                                                            0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
HAZARDOUS AIR POLLUTANTS (HAPS):
                                                             0.0 Wt% /0.0 g/L / 0.000 Lbs/Gal
NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C) 0.0
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* Using California South Coast Air Quality Management District (SCAQMD) Rule 443.1.

SECTION 10. STABILITY & REACTIVITY

STABILITY

Stable under normal conditions.

CONDITIONS TO AVOID

Isolate from extreme heat and open flame.

MATERIALS TO AVOID

Reacts violently with fire extinguishers containing water. The substance is a strong base, reacts violently with acids and is corrosive. Reacts with water generating sufficient heat to ignite combustible materials. Reacts violently with strong acids, causing fire & explosion hazard. Attacks many plastics, rubber, coatings, many metals, such as aluminum, zinc, tin, & lead. forming flammable/explosive gas (hydrogen). Reacts with ammonium salts to produce ammonia & causing fire hazard. Rapidly absorbs carbon dioxide & water from the air. Contact with moisture will generate heat. Avoid contact with leather or wool. Reactions with food sugars may form carbon monoxide.

HAZARDOUS DECOMPOSITION PRODUCTS

Potassium Oxide & Hydroxide, Sodium Oxide & Hydroxide, Phosphorus Pentoxide, Silicon Dioxide from heating.

HAZARDOUS POLYMERIZATION Will not occur.

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SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE HAZARDS

EYE & SKIN CONTACT:

Severe burns to skin, tissue damage. Severe burns to eyes, may result in blindness. Liquid can cause severe skin & eye burns. Wash thoroughly after handling.

INHALATION:

Severe respiratory tract irritation may occur. Vapor harmful. The applicable occupational exposure limit value should not be exceeded during any part of the working exposure.

SWALLOWING:

Harmful or fatal if swallowed.

SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

MEDICAL CONDITION AGGRAVATED BY EXPOSURE:

Skin and respiratory conditions can be aggravated by over-exposure to this product.

CHRONIC HAZARDS

CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS: This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

MUTAGENICITY: This product is not reported to produce mutagenic effects in humans. Mutation data obtained during clinical studies on test animal tissues or micro-organisms, are available for the following components of this product: Sodium and Potassium Hydroxide.

EMBRYOTOXICITY: This product is not reported to produce embryotoxic effects in humans.

TERATOGENICITY: This product is not reported to produce teratogenic effects in humans.

REPRODUCTIVE TOXICITY: This product is not reported to cause reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical which causes damage to a developing embryo (such as: within the eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A <u>teratogen</u> is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A <u>reproductive toxin</u> is any substance which interferes in any way with the reproductive process.

MAMMALIAN TOXICITY INFORMATION

TOXICITY DATA: Toxicology information for components > 1% concentration is given below:

POTASSIUM HYDROXIDE:

Skin (Human): 50 mg/24 hours, Severe irritating effects Skin (Adult Rabbit): 50 mg/24 hours, Severe irritating effects
Eye Effects (Adult Rabbit): 1 mg/24 hours, rinse: Moderate irritation
Cytogenetic Analysis (Rat/ast): 1800 mg/kg

LD50 Oral (Rat): 273 mg/kg

SODIUM METASILICATE, ANHYDROUS:

Skin (Human): 250 mg/24 hours (Severe irritation effects)

Skin (Rabbit, Adult): 250 mg/24 hours (Severe irritation effects)

Skin (Guinea Pig, Adult): 250 mg/24 hours (Moderate irritation effects)
Oral TDLo (Rat): 15 g/kg (14W male/14W pre-3W post): (Reproductive effects)
Oral LDLo (Dog, Adult): 250 mg/kg
Oral LD50 (Rat): 153 mg/kg

Oral LD50 (Mouse): 770 mg/kg Oral LDLo (Pig): 250 mg/kg

Intraperitoneal LDLo (Guinea Pig, Adult): 200 mg/kg

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SECTION 12. ECOLOGICAL INFORMATION

AQUATIC ANIMAL INFORMATION:

No aquatic environmental information is available on this product. The substance may be hazardous in the environment. Special attention should be given to water organisms.

MOBILITY IN SOIL

Mobility of this material has not been determined.

DEGRADABILITY

This product is completely biodegradable.

ACCUMULATION

Bioaccumulation of this product has not been determined.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies. EPA WASTE #: D002 (Characteristic: Corrosivity): Wastes consisting only of this solution.

SECTION 14. TRANSPORT INFORMATION

IF > 1111 LB / 505 KG OF THIS PRODUCT IN 1 CONTAINER, IT EXCEEDS THE "RQ" OF POTASSIUM HYDROXIDE.

DOT SHIPPING NAME: UN3262, RQ, Corrosive solid, basic, inorganic, n.o.s. (contains: Potassium Hydroxide, Sodium Metasilicate), 8, PG-II

DRUM LABEL: (CORROSIVE)

IATA / ICAO: UN3262, Corrosive solid, basic, inorganic, n.o.s.

(contains: Potassium Hydroxide, Sodium Metasilicate), 8, PG-II UN3262, Corrosive solid, basic, inorganic, n.o.s. (contains: Potassium Hydroxide, Sodium Metasilicate), 8, PG-II

IMO / IMDG:

EMERGENCY RESPONSE GUIDEBOOK NUMBER: 154

SECTION 15. REGULATORY INFORMATION

EPA REGULATION:

SARA SECTION 311/312 HAZARDS: Acute Health

 $\,$ All components of this product are on the TSCA list. SARA Title III Section 313 Supplier Notification This product contains the indicated <*> toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-To-Know Act of 1986 & of 40 CFR 372. This information must be included in all MSDSs that are copied and distributed for this material.

EINECS# SARA TITLE III INGREDIENTS WT% CAS# (REG.SECTION) RQ(LBS) Potassium Hydroxide* 1310-58-3 1-10 (311,312) 1000 COMPANY IDENTITY: Univar DATE: 08/04/11 PRODUCT IDENTITY: BLEND SUPER-K CIP PAGE: 8 OF 8

SECTION 15. REGULATORY INFORMATION (CONTINUED)

> 1111 LB / 505 KG OF THIS PRODUCT IN 1 CONTAINER EXCEEDS THE "RQ" OF POTASSIUM HYDROXIDE. Any release equal to or exceeding the RQ must be reported to the National Response Center (800-424-8802) and appropriate state and local regulatory agencies as described in 40 CFR 302.6 and 40 CFR 355.40 respectively. Failure to report may result in substantial civil and criminal penalties. State & local regulations may be more restrictive than federal regulations.

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65: This product contains no chemicals known to the State of California to cause cancer & reproductive toxicity.

U.S. STATE REGULATED COMPONENTS:	(HAZAR	DOUS SI	JBSTANC	E LISTS	5):			
COMPONENT	AK	CA	FL	IL	KS	MA	MI	MN
Potassium Hydroxide	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
COMPONENT	МО	NJ	ND	PA	RI	TX	WV	WI
Potassium Hydroxide	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

INTERNATIONAL REGULATIONS

The components of this product are listed on the chemical inventories of the following countries:

Australia (AICS), Canada (DSL, NDSL), China (IECSC), Europe (EINECS, ELINCS), Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIOC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

D2B: Irritating to skin / eyes.

E: Corrosive Material.

SECTION 16. OTHER INFORMATION

HAZARD RATINGS:

HEALTH (NFPA): 3, HEALTH (HMIS): 3, FLAMMABILITY: 0, REACTIVITY: 1 (Personal Protection Rating to be supplied by user based on use conditions.) This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

EMPLOYEE TRAINING

See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.

Univar USA Inc Material Safety Data Sheet

For Additional Information contact MSDS Coordinator during business hours, Pacific time: (425) 889-3400

Notice

Univar USA Inc. ("Univar") expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis. These can be obtained from your local Univar sales office.

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