



SAFETY DATA SHEET

Conforms to the requirements of the United States Hazard Communication regulation 29 CFR 1910.1200

SECTION 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION

PRODUCT NAME	EMAL D-4-D
PRODUCT CASRN	MIXTURE
PRODUCT DESCRIPTION	FATTY ALCOHOLS, SODIUM SALTS
SDS DOCUMENT No.	123621
RECOMMENDED USES	This product is intended for use as a surface-active agent in industrial and commercial applications.

RESPONSIBLE PARTY

Kao Specialties Americas LLC
243 Woodbine Street
P. O. Box 2316
High Point, NC 27261
Telephone: 1-800-727-2214

Refer to SECTION 16 for information regarding the
MANUFACTURER(s) of this product

FOR ALL TRANSPORTATION ACCIDENTS, call Chemtrec at 800-424-9300 or 703-527-3887 for international collect calls.

SECTION 2: HAZARD(S) IDENTIFICATION

PRODUCT CLASSIFICATION per 29 CFR 1910.1200

HAZARD CLASSIFICATION	Serious Eye Damage/Eye Irritation Category 1 Skin Corrosion/Irritation Category 2
SIGNAL WORD	Danger
HAZARD STATEMENTS	Causes skin irritation. Causes serious eye damage.

**HAZARD
PICTOGRAMS**



RECOMMENDED SAFETY PRECAUTIONS

INJURY PREVENTION

Wash thoroughly after handling.
Wear chemical-resistant gloves and clothing, eye protection and face protection.

**EMERGENCY
RESPONSE**

IF ON SKIN: Wash with plenty of soap and water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.

HAZARDS NOT OTHERWISE CLASSIFIED

PYROPHORIC GASES

Not applicable

**SIMPLE
ASPHYXIANTS**

Not applicable

COMBUSTIBLE DUST

Not applicable

Dust Classification	Minimum Ignition Energy (mJ)	P _{max} (bar-g)	R _{max} (bar/s)	K _{st} (bar-m/s)	Explosion Severity
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Definitions for dust classifications are found in OSHA Instruction CPL 03-00-008 *Combustible Dust National Emphasis Program (reissued)* March 11, 2008, Appendix E, Section 5

**Other Known
Hazards**

None

FOR INFORMATION REGARDING ENVIRONMENTAL GHS CLASSIFICATION, REFER TO SECTION 12 BELOW

SECTION 3: COMPOSITION/INFORMATION on INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration (%)
Sulfuric acid, monoisodecyl ester, sodium salt (1:1)	Sodium isodecyl sulfate	Confidential	Confidential
Confidential	Sodium C12-15 alkyl sulfate	Confidential	Confidential
Confidential	Sodium polyoxyethylene alkyl ethers sulfates	Confidential	Confidential

If any items in the table above are described as CONFIDENTIAL, Kao Specialties Americas LLC considers this information to constitute a Trade Secret.

SECTION 4: FIRST-AID MEASURES

EYES

Remove contact lens immediately, if present and easy to remove. Immediately flush eyes with plenty of water for at least 15 minutes. If necessary, seek medical attention.

SKIN

In case of contact, immediately remove contaminated clothing and flush skin with copious amounts of water. SEEK MEDICAL ATTENTION IMMEDIATELY. If medical attention is not immediately available, contact POISON CONTROL CENTER (1-800-222-1222).

INGESTION

If the material is swallowed, get immediate medical attention or advice -- Give several glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.

INHALATION

Move person to non-contaminated air.

SYMPTOMS of EXPOSURE

None known.

NOTES to PHYSICIAN

Provide general supportive measures and treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES

Refer to SECTION 9: Physical and Chemical Properties

HAZARDOUS PRODUCTS of COMBUSTION

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

PROPERTIES THAT COULD INCREASE FIRE or EXPLOSION HAZARD

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

EXTINGUISHING MEDIA

Powder, alcohol-resistant foam, water spray, CO2 & sand

FIRE-FIGHTING INSTRUCTIONS

Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA ratings are found in SECTION 16

SECTION 6: ACCIDENTAL RELEASE MEASURES

FOR ALL TRANSPORTATION ACCIDENTS, call Chemtrec at 800-424-9300 or 703-527-3887 for international collect calls.

RESPONSE TO SMALL SPILLS OF PRODUCT

SPILL CONTAINMENT	Dike the spilled material, where this is possible.
SPILL CLEANUP PROCEDURES	Do not allow the spilled product to enter public drainage system or open water courses.
REQUIRED EQUIPMENT	Shovel the material into waste container.
ADDITIONAL INFORMATION	No other spill procedures necessary.

RESPONSE TO LARGE SPILLS OF PRODUCT

SPILL CONTAINMENT	Dike the spilled material, where this is possible.
SPILL CLEANUP PROCEDURES	Do not allow the spilled product to enter public drainage system or open water courses.
REQUIRED EQUIPMENT	No additional information on equipment.
ADDITIONAL INFORMATION	No other spill procedures necessary.

SECTION 7: HANDLING AND STORAGE

HANDLING REQUIREMENTS	Do not get this material in your eyes, on your skin, or on your clothing.
STORAGE REQUIREMENTS	Keep this material in a cool, dark, well-ventilated place.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
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PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION	Wear chemical goggles and face shield.
HAND PROTECTION	Use impervious gloves.
SKIN PROTECTION	Normal work clothing (long sleeved shirts and long pants) is recommended.
RESPIRATORY PROTECTION	A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever there may be potential for airborne exposure.

EXPOSURE LIMITS

CHEMICAL	CASRN	PERCENT	LIMITS	AGENCY
OSHA:	No exposure limits established for this product			
ACGIH:	No exposure limits established for this product			

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE @ 20°C	Pale yellow to light yellow liquid	ODOR	Slightly characteristic odor
ODOR THRESHOLD	No data available	pH	9 (1% solution)
VAPOR DENSITY	No data available	VAPOR PRESSURE	No data available
EVAPORATION RATE	No data available	RELATIVE DENSITY	No information available.
MELTING POINT (°C)	No data available	WATER SOLUBILITY	Soluble
INITIAL BOILING POINT (°C)	No data available	BOILING RANGE (°C)	No data available
PARTITION COEFFICIENT (N-OCTANOL/WATER)	No data available	VISCOSITY	No data available
DECOMPOSITION TEMPERATURE	No data available	FLAMMABILITY CLASSIFICATION	Not evaluated
FLASH POINT (°C)	Not applicable	AUTO-IGNITION TEMPERATURE	No data available

UPPER EXPLOSIVE
LIMIT

No data available

LOWER
EXPLOSIVE LIMIT

No data available

SECTION 10: STABILITY and REACTIVITY

CHEMICAL STABILITY | Stable under normal conditions.

**CONDITIONS to
AVOID** | None known

**INCOMPATIBLE
MATERIALS
(Reactivity)** | None known.

**INCOMPATIBLE
MATERIALS (Storage
& Transport)** | None under normal conditions.

**HAZARDOUS
DECOMPOSITION
PRODUCTS** | None known.

**HAZARDOUS
POLYMERIZATION** | Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

EYE EFFECTS | Eye contact with contents of tube may produce severe eye irritation, including burns.

SKIN EFFECTS | This product is irritating to the skin.

**ACUTE ORAL
EFFECTS
(INGESTION)** | Acute ingestion may result in mild gastrointestinal distress.

**ACUTE INHALATION
EFFECTS** | Negligible hazard at room temperature (up to 95 degrees F).

TARGET ORGANS | No known effects.

CHRONIC EFFECTS

TERATOLOGY | No data available for this product.

**REPRODUCTIVE and
DEVELOPMENTAL
TOXICITY**

No information available.

CARINOGENICITY

CHEMICAL NAME	DATA	AGENCY	LIST
None of the components of this product are listed on the OSHA Possible or Select Carcinogens Lists.			
None of the components of this product are listed on the ACGIH Carcinogens List.			
No limits established for this product by the International Agency for Research on Cancer (IARC).			
None of the components of this product are listed on the NTP Known or Suspected Carcinogens List.			

LETHAL DOSE (LD50 & LC50) DATA

No information available for this product.

**MEDICAL
CONDITIONS
AGGRAVATED by
EXPOSURE**

No information available.

ROUTES of ENTRY

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation.

**OTHER
TOXICOLOGICAL
INFORMATION**

Acute Oral Toxicity (ingredients): Sodium isodecyl sulfate: Category 4
Acute Dermal Toxicity (ingredients): Sodium isodecyl sulfate: Category 4 (10% of the mixture consists of ingredients of unknown toxicity)
Skin Corrosion/Irritation (ingredients): Sodium isodecyl sulfate: Category 2
Skin Corrosion/Irritation (ingredients): Sulfuric acid, mono-C12-15-alkyl esters, sodium salts: Category 2
Skin Corrosion/Irritation (ingredients): Sodium polyoxyethylene alkyl ethers sulfates: Category 2
Eye Damage/Irritation (ingredients): Sodium isodecyl sulfate: Category 1
Eye Damage/Irritation (ingredients): Sulfuric acid, mono-C12-15-alkyl esters, sodium salts: Category 1
Eye Damage/Irritation (ingredients): Sodium polyoxyethylene alkyl ethers sulfates: Category 1

SECTION 12: ECOLOGICAL INFORMATION**UN GHS AQUATIC TOXICITY CLASSIFICATION INFORMATION****AQUATIC TOXICITY
CLASSIFICATION**Acute 2
Chronic 3**SIGNAL WORD**

Not applicable

HAZARD PICTOGRAM	Not applicable
HAZARD STATEMENT	Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
PREVENTION	Avoid release to the environment.
RESPONSE	Not applicable
DISPOSAL	Dispose of contents and container in accordance with local, national, and international regulations for hazardous wastes.

ADDITIONAL ENVIRONMENTAL INFORMATION

ECOTOX. INFORMATION	None determined
ENVIRONMENTAL FATE	No data available for this product.
BIOLOGICAL OXYGEN DEMAND (BOD5), g/g	No data available
CHEMICAL OXYGEN DEMAND (COD), g/g	No data available
PERSISTENCE & DEGRADABILITY	No information available.
BIOACCUMULATION	No information available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DESCRIPTION	Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.
GENERAL DISPOSAL CONSIDERATIONS	Clean up and dispose of waste in accordance with all federal, state, and local environmental regulations.
DISPOSAL of EMPTY CONTAINERS	Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

RCRA COMPONENT	CASRN	DATA
No limits established for this product.		

SECTION 14: TRANSPORT INFORMATION

	US DOT	IATA	IMDG
UN NUMBER		Not applicable	Not applicable
UN PROPER SHIPPING NAME	Non-hazardous material	Non-hazardous material	Non-hazardous material
TRANSPORT HAZARD CLASS(ES)		Not applicable	Not applicable
PACKING GROUP		Not applicable	Not applicable
REPORTABLE QUANTITY (RQ)	No reportable quantity for this product		
MARINE POLLUTANT	None		

SECTION 15: REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)	This product is listed on the U.S. EPA TSCA Inventory.
EXPORT NOTIFICATIONS	This product is not subject to TSCA 12B Export Notification requirements.
SIGNIFICANT NEW USE RULE (SNUR)	This material is not subject to a Significant New Use Rule under the US Toxic Substances Control Act.

INTERNATIONAL CHEMICAL INVENTORIES

All of the components of this product are listed on the following inventories:

DSL	Canada	Not evaluated
NDSL	Canada	Not evaluated
ENCS	Japan	Yes
EINECS	Europe	No
ELINCS	Europe	No
IECSC	China	No
PICCS	Philippines	No

ECL	Korea	No
AICS	Australia	No

**EMERGENCY PLANNING and COMMUNITY RIGHT TO KNOW ACT (EPCRA)
40 CFR PART 355, APPENDIX A**

EHS COMPONENTS	CASRN	PERCENT	TPQ POUNDS and RQ
No limits established for this product.			

313 COMPONENTS	CASRN	PERCENT	REPORTING LIMIT
No limits established for this product.			

CERCLA/SARA COMPONENTS	CASRN	PERCENT	REPORTING LIMIT
Sodium phosphate, dibasic	7558-79-4	<.25	5000 lb final RQ; 2270 kg final RQ

EPCRA SECTION 311/312 CLASSIFICATION	ACUTE	Yes
	CHRONIC	No
	FIRE	No
	PRESSURE	No
	REACTIVE	No

OTHER FEDERAL REGULATIONS

The following components are identified under the Clean Air Act HON-Rule for SOCM chemicals:

COMPONENT NAME	CASRN
No regulated components	

The following components are identified under the Clean Air Act (VOCs in SOCM chemicals):

COMPONENT NAME	CASRN
No regulated components	

The following components are identified under the Clean Air Act as Hazardous Air Pollutants (HAP)

COMPONENT NAME	CASRN
No regulated components	

The following components are identified under the Clean Air Act HON-Rule Hazardous Air Pollutants (HAP)

COMPONENT NAME	CASRN
No regulated components	

The following components are identified under the Clean Water Act:

COMPONENT NAME	CASRN	LIST NAME
Sodium phosphate, dibasic	7558-79-4	CWA – Reportable Quantity
Sodium phosphate dibasic	7558-79-4	CWA – Hazardous Substance

STATE RIGHT-TO-KNOW INFORMATION:

COMPONENT NAME	CASRN	STATE	List Name
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If the STATE RIGHT-TO-KNOW INFORMATION table above is empty than none of the components of this product are included on the state right-to-know regulatory lists for California, Florida, Massachusetts, Michigan, Pennsylvania, or New Jersey.

SECTION 16: OTHER INFORMATION

To the best of the manufacturer's knowledge, the information contained herein is accurate. However, neither the manufacturer, nor any of its affiliates, make any representations or warranties (expressed or implied), nor assumes any liability (including liability for any direct, incidental, consequential, or other damages) with respect to the accuracy or completeness of the information contained herein. Such information may be (without limitation) invalid if the specified material is used in combination with another, in a particular process, or under unusual conditions. Determination of suitability of any material for any given purpose is the sole responsibility of the user who assumes all risk and responsibility therefore. All materials may present unknown hazards and should be used with appropriate caution. The manufacturer cannot and does not guarantee that the hazards described herein are the only ones that exist.

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SDS VERSION DATE	5/27/2015 2:10:52 PM
SDS APPROVED BY	Patrick B. Simcox Manager – Health, Safety, & Environmental e-mail: psimcox@ksallc.com

MANUFACTURER(S) | Kao Corporation

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Tokyo, Japan 131-8501
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NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD RATINGS

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0

Hazardous Material Identification System (HMIS) Hazard Ratings

HEALTH	3
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	D

The following components of this product are listed on the Canadian WHMIS Ingredient Disclosure List (IDL):

COMPONENT	CASRN	PERCENT	MINIMUM CONCENTRATION
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No regulatory limits established for this product.

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