



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	ASFIER N480L
PRODUCT CASRN	CONFIDENTIAL
PRODUCT DESCRIPTION	FATTY ALKYL POLYAMINES
SDS DOCUMENT No.	K78090
RECOMMENDED USES	This product is intended for use as a processing additive in asphalt formulations.

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	Skin Corrosion/Irritation Category 1A Serious Eye Damage/Eye Irritation Category 1 Acute Toxicity - Oral Category 4
SIGNAL WORD	Danger
HAZARD STATEMENTS	Harmful if swallowed. Causes severe skin burns and eye damage.

**HAZARD
PICTOGRAMS**



RECOMMENDED SAFETY PRECAUTIONS

INJURY PREVENTION

Do not breathe dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear chemical-resistant gloves and clothing, eye protection and face protection.

**EMERGENCY
RESPONSE**

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
Wash contaminated clothing before reuse.

PRODUCT STORAGE

Store locked up.

PRODUCT DISPOSAL

Dispose of contents and container in accordance with local, national, and international regulations for hazardous wastes.

HAZARDS NOT OTHERWISE CLASSIFIED

PYROPHORIC GASES

Not applicable

**SIMPLE
ASPHYXIANTS**

Not applicable

COMBUSTIBLE DUST

Not applicable

Dust Classification	Minimum Ignition Energy (mJ)	Pmax (bar-g)	Rmax (bar/s)	Kst (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 (%)
Confidential	N-Fatty Alkyl Polypropylene Polyamines	Confidential	~ 100

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	Flush immediately with water for at least 15 minutes. Do not rub eyes. Remove contact lens immediately, if present and easy to remove. SEEK IMMEDIATE MEDICAL ATTENTION ONCE THE EXPOSED PERSON IS SAFE TO TRANSPORT.
SKIN	Immediately take off all contaminated clothing. For small exposure, wash affected area with 2% acetic acid solution until the slimy feeling disappears. Follow acid wash with flushing the exposed area with copious amount of water. For large exposure, use safety shower to flush the affected area with heavy flow 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.
INHALATION	If inhaled, immediately remove the affected person to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. If symptoms persist, get medical attention.
SYMPTOMS of EXPOSURE	Skin contact: exposure to this product will result in rash and irritation. Deep-tissue chemical burn will develop slowly over a period of hours if the material is not promptly removed from the affected area. Eyes: symptoms include itching, burning, redness and tearing. Respiratory: symptoms may include burning sensation in the upper respiratory system, shortness of breath, and choking/coughing.
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	Irritating and toxic gases or fumes may be released during a fire. Upon decomposition, this product may yield poisonous gases including oxides of nitrogen, hydrogen gas and ammonia.

**PROPERTIES THAT
COULD INCREASE
FIRE or EXPLOSION
HAZARD**

Vapors can travel to a source of ignition and flash back.

**EXTINGUISHING
MEDIA**

Powder, alcohol-resistant foam, 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

Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

**SPILL CLEANUP
PROCEDURES**

Wear appropriate protective equipment and clothing during clean-up. Ventilate the contaminated area. Absorb spill with inert material. Shovel material into appropriate container for disposal.

**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. Stop source of leak if possible. Prevent liquid from entering sewers. Keep out of drains and water courses.

**SPILL CLEANUP
PROCEDURES**

Ventilate the contaminated area. Absorb spill with inert material. Shovel material into appropriate container for disposal. Thoroughly wash the area with water after a spill or leak clean-up. For very large spills, activate company or local HAZMAT emergency response. Use of properly trained remediation company may be required to safely collect the spilled product.

**REQUIRED
EQUIPMENT**

Wear appropriate protective equipment and clothing during clean-up.

**ADDITIONAL
INFORMATION**

Dispose of per guidelines under Section 13, DISPOSAL CONSIDERATIONS

SECTION 7: HANDLING AND STORAGE

HANDLING REQUIREMENTS

As with all chemicals, good industrial hygiene practices should be followed when handling this material. Use this product with adequate ventilation. Use a NIOSH-approved respirator if exposed to oil mist, and adequate ventilation is not available. Avoid getting this material into contact with your skin and eyes.

STORAGE REQUIREMENTS

Storage area should be protected by appropriately designed containment to prevent release to groundwater or sewers.
Keep the container tightly closed and in a cool, well-ventilated place.
Do not mix storage with incompatible materials. Store containers away from acids and strong oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION

If handling procedure does not require respiratory protection, chemical splash goggles and full-face shield are recommended when handling this product.

HAND PROTECTION

Impervious gloves should be used at all times when handling this product.

SKIN PROTECTION

Use of protective coveralls and long sleeves is recommended. Impervious gloves should be used at all times when handling this product.

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 | Reddish-brown liquid

ODOR | Characteristic odor

ODOR THRESHOLD | No data available

pH | 10.0-11.0 (1% solution)

VAPOR DENSITY	No data available	VAPOR PRESSURE	<0.1 TORR @ 20°C
EVAPORATION RATE	No data available	RELATIVE DENSITY	0.88g/mL @ 20°C
MELTING POINT (°C)	No data available	WATER SOLUBILITY	Slightly 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	CLASS IIIB
FLASH POINT (°C)	230°C Cleveland Open Cup	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	Use suitable technology and/or best work practices to prevent or minimize air emissions of this product.
INCOMPATIBLE MATERIALS (Reactivity)	This product reacts with acids.
INCOMPATIBLE MATERIALS (Storage & Transport)	Avoid contact with acids, acid anhydrides, oxidizing agents, copper and copper alloys.
HAZARDOUS DECOMPOSITION PRODUCTS	None known.
HAZARDOUS POLYMERIZATION	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

EYE EFFECTS

This product is severely irritating to the eyes and may cause eye burns. Vapors may also produce eye irritation.

SKIN EFFECTS

Contact with material will cause deep tissue burns unless promptly removed. Material is readily absorbed into the skin, resulting in deep burns several hours after initial exposure.

ACUTE ORAL EFFECTS (INGESTION)

Ingestion of this product will result in corrosion and severe chemical burns to the mouth and upper gastrointestinal tract

ACUTE INHALATION EFFECTS

No information available.

TARGET ORGANS

No known effects.

CHRONIC EFFECTS

MUTAGENICITY

No information available

TERATOLOGY

No data available for this product.

REPRODUCTIVE and DEVELOPMENTAL TOXICITY

No information available.

CARCINOGENICITY

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

LD50 ORAL

LD50 Oral Rat : 1500 mg/kg

LD50 DERMAL

No information available

LC50 INHALATION

No information available

**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.

SECTION 12: ECOLOGICAL INFORMATION

UN GHS AQUATIC TOXICITY CLASSIFICATION INFORMATION**AQUATIC TOXICITY
CLASSIFICATION**

Acute 1

SIGNAL WORD

Warning

**HAZARD
PICTOGRAM****HAZARD STATEMENT**

Very toxic to aquatic life.

PREVENTION

Avoid release to the environment.

RESPONSE

Collect spillage.

DISPOSAL

Dispose of contents and container in accordance with local, national, and international regulations for hazardous wastes.

ADDITIONAL ENVIRONMENTAL INFORMATION**AQUATIC TOXICITY
(fish)**

96 hr LC50 Rainbow Trout : 7.5 mg/L

**AQUATIC TOXICITY
(crustacean)**

No information available

**AQUATIC TOXICITY
(algae)**

No information available

**ECOTOXICITY
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	UN2735	UN2735	UN2735
UN PROPER SHIPPING NAME	Polyamines, liquid corrosive, n.o.s.	Polyamines, liquid corrosive, n.o.s.	Polyamines, liquid corrosive, n.o.s.
TECHNICAL NAME	containing n-alkyl polypropylene polyamines	containing n-alkyl polypropylene polyamines	containing n-alkyl polypropylene polyamines
TRANSPORT HAZARD CLASS(ES)	8	8	8
PACKING GROUP	III	III	III

REPORTABLE QUANTITY (RQ)	No reportable quantity for this product
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**EMERGENCY
RESPONSE
GUIDEBOOK (ERG)
REFERENCE**

153

MARINE POLLUTANT | MARINE POLLUTANT

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	No
NDSL	Canada	Yes
ENCS	Japan	No
EINECS	Europe	No
ELINCS	Europe	No
IECSC	China	Yes
PICCS	Philippines	No
ECL	Korea	No
AICS	Australia	No
TCSI	Taiwan	Yes

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
No limits established for this product.			

**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 SOCMIs chemicals:

COMPONENT NAME	CASRN
No regulated components	

The following components are identified under the Clean Air Act (VOCs in SOCMIs 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
No limits established for this product.		

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 Florida, Massachusetts, Michigan, Pennsylvania, or New Jersey.

CALIFORNIA SAFE WATER and TOXIC ENFORCEMENT ACT of 1986 (Proposition 65)

COMPONENT NAME	CASRN	CONCENTRATION [†]	LIST DATA
This product contains no components which are listed on California's Proposition 65 lists.			
[†] CONCENTRATIONS EXPRESSED IN % UNLESS UNITS ARE SPECIFIED			

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.

SDS GENERATED BY	HAZEMS
SDS VERSION DATE	6/28/2016 9:13:16 AM
SDS APPROVED BY	Patrick B. Simcox Manager – Health, Safety, & Environmental e-mail: psimcox@ksallc.com
MANUFACTURER(S)	Quimikao, S.A. de C.V. KM22.5 Carr. Guadalajara-El Salto El Salto, Jalisco Mexico 45680 52-3-6880422

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD RATINGS

HEALTH	3
FLAMMABILITY	1
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.

END OF DOCUMENT