

BFGoodrich Kalama Emergency Phone 1-360-673-2550 CHEMTREC 1-800-424-9300

I PRODUCT INFORMATION

TRADE NAME: **K-FLEX[®] DE**

CHEMICAL NAME: Diethylene glycol dibenzoate
SYNONYMS: 2,2'-oxybis(ethanol)dibenzoate
Ethanol, 2,2'-oxybis-,dibenzoate

FAMILY: Glycol Dibenzoate ester

MOLECULAR FORMULA: $(C_6H_5CO_2CH_2CH_2)_2O$ ($C_{18}H_{18}O_5$)

MOLECULAR WEIGHT: 314.36

CAS REG #: 120-55-8

TRADE NAME: **K-FLEX[®] DP**

CHEMICAL NAME: Dipropylene glycol dibenzoate
SYNONYMS: 3,3'-oxydi-1-propanol dibenzoate
Propanol, oxybis-, dibenzoate

FAMILY: Glycol Dibenzoate ester

MOLECULAR FORMULA: $(C_6H_5CO_2CHCH_3CH_2)_2O$ ($C_{20}H_{22}O_5$)

MOLECULAR WEIGHT: 342.42

CAS REG #: 27138-31-4

K-FLEX[®] 500 is a blend of **K-FLEX[®] DE** and **K-FLEX[®] DP**.

II SUMMARY OF HAZARDS

CAUTION! MAY CAUSE SKIN AND EYE IRRITATION

III PHYSICAL PROPERTIES

	<u>K-FLEX[®] DE</u>	<u>K-FLEX[®] DP</u>	<u>K-FLEX[®] 500</u>
APPEARANCE / ODOR:	Colorless to straw colored viscous liquids with a faint aromatic odor		
BOILING POINT (5 mm Hg):	~464°F (240°C)	~446°F (230°C)	~455°F (235°C)
MELTING POINT:	~61°F (~16°C)	~-22°F (~-30°C)	~32°F (~0°C)
VAPOR PRESSURE: (68°F):	<1mm Hg	<1mm Hg	<1mm Hg
SPECIFIC GRAVITY (77°F):	1.18	1.13	1.15
WEIGHT PER GALLON (#):	9.8	9.4	9.6
VAPOR DENSITY (Air=1):	10.8	11.8	11.3
% VOLATILE:	100	100	100
SOLUBILITY IN WATER:	Negligible	Negligible	Negligible

IV FIRE AND EXPLOSION HAZARD INFORMATION

	<u>K-FLEX® DE</u>	<u>K-FLEX® DP</u>	<u>K-FLEX® 500</u>
<u>FLASH POINT (TCC):</u>	>300°F	>300°F	>300°F
<u>FLAMMABLE LIMITS:</u>	Not Determined	Not Determined	Not Determined
<u>AUTOIGNITION TEMP:</u>	Not Determined	Not Determined	Not Determined
<u>DECOMPOSITION TEMP:</u>	Not Determined	Not Determined	Not Determined

FIRE and EXPLOSION HAZARDS: Decomposition under fire conditions will generate carbon monoxide and may generate other toxic vapors.

FIRE FIGHTING INFORMATION: Use CO₂, foam, or dry chemical to extinguish fire. Water can be used to cool a fire, but for extinguishment, foam or dry chemical are preferred. Avoid spreading liquid and fire by waterflooding. Wear self-contained, positive pressure breathing apparatus and full firefighting protective clothing. Use water to keep containers cool.

V HAZARD RATINGS FOR K-FLEX® DE, DP and 500

<u>NFPA HAZARD RATINGS</u>	<u>HEALTH FLAMMABILITY REACTIVITY</u>	<u>1 1 0</u>	<u>HMIS RATINGS (NPCA & NAPIM)</u>	<u>HEALTH FLAMMABILITY REACTIVITY</u>	<u>1 1 0</u>
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VI HEALTH HAZARD INFORMATION

LD₅₀ (ORAL RAT): K-FLEX® DE - 2830 mg/kg; K-FLEX® DP - 9800 mg/kg

THRESHOLD LIMIT VALUE (TLV): TLV has not been established by the ACGIH.

CARCINOGEN (IARC / NTP / 29CFR): No

NOTE: Health studies have shown that exposures to chemicals pose potential health risks which may vary from person to person. Therefore, exposures to all liquids, vapors, mists, or fumes should be minimized.

ACUTE HEALTH HAZARDS:

Inhalation: Inhalation of concentrated vapor may irritate the nose and throat.

Eye Contact: May cause very mild eye irritation.

Skin Contact: May cause mild skin irritation.

Ingestion: See LD50 information.

CHRONIC HEALTH HAZARDS:

Prolonged or repeated contact may cause defatting of the skin.
No other chronic health hazard information is available.

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VI HEALTH HAZARD INFORMATION (cont)

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

EMERGENCY FIRST AID:

Inhalation: If overcome by exposure, remove to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention.

Eye Contact: In case of eye contact, flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

Skin Contact: In case of skin contact, flush skin with plenty of mild soap and water. Remove contaminated clothing. Call a physician if irritation develops. Wash clothing before reuse.

Ingestion: If swallowed, call a physician immediately. Induce vomiting only on advice of medical personnel. Never give anything by mouth to an unconscious person.

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VII PROTECTIVE EQUIPMENT AND EXPOSURE CONTROL METHODS

Use with adequate local exhaust ventilation. In confined or enclosed spaces, use NIOSH approved respiratory protection. Use chemical resistant apron, gloves, and other impervious clothing to avoid skin contact. Use splash goggles and face shield when eye contact may occur. Provide safety shower equipped with an eye wash fountain in the immediate vicinity of any potential exposure.

Use good personal hygiene practices. Wash hands before eating, drinking or smoking, or using toilet facilities. Promptly remove contaminated clothing and wash thoroughly before reuse.

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VIII REACTIVITY DATA

STABILITY: Stable HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBLE MATERIALS: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Incomplete combustion will produce carbon monoxide and other potentially toxic and/or poisonous vapors.

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IX SPILL OR LEAK PROCEDURES

Remove sources of ignition, stop release, and provide adequate ventilation. Prevent flow to sewer and public waters. Recover free product, if possible. Cover spill with inert, non-combustible absorbent material and remove to disposal container. Report spill as per regulatory requirements. Leaking drum should be emptied or placed into an oversized (recovery) drum.

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X WASTE DISPOSAL

Disposal must be made in accordance with applicable governmental regulations. Do not contaminate any streams, lakes, or ponds.

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XI ADDITIONAL PRECAUTIONS

Store as NFPA Class IIIB liquids. Keep fire and sparks away from drums. Since empty containers retain product residue, do not cut, drill, grind, or weld on or near the container until it is thoroughly cleaned.

Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair. Remove all ignition sources. Check atmosphere for the presence of flammable vapors as well as oxygen deficiencies. Use adequate personal protective equipment. Comply with regulations governing confined space entry.

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XII OSHA / SARA TITLE III INFORMATION

We have evaluated K-FLEX® DE, DP, and 500 using the criteria in OSHA's Hazard Communication Rule (29CFR 1910.1200). K-FLEX® DE, DP, and 500 are not considered hazardous under this OSHA standard.

K-FLEX® DE, DP, and 500 are not listed as Extremely Hazardous Substances under Section 302 of SARA Title III.

K-FLEX® DE, DP, and 500 are not subject to the reporting requirements of Sections 311 or 312 of SARA Title III.

K-FLEX® DE, DP, and 500 do not contain ingredients (at a level of 1% or more) on the List of Toxic Chemicals in Section 313 of SARA Title III.

K-FLEX® DE, DP, and 500 are included in the current TSCA Inventory List.

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