



EURAM CHEMICALS LTD

SAFETY DATA SHEET (EEC)

Reference: TD 0022508

Revised: 06/06/14

Product: K-FLEX 500

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

PRODUCT NAME / TRADENAME: K-FLEX 500

CHEMICAL DESCRIPTION: blend of glycol dibenzoates

| | |
|-----------------------|---------------------|
| SUPPLIER | Euram Chemicals Ltd |
| Street/PO Box no | P O Box 346 |
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2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

Product classification according to Regulation (EC) 1272/2008 (CLP) as amended:

Hazardous to the aquatic environment, Chronic, category 3, H412

Product classification according to Directive 67/548/EEC or 1999/45/EC as amended:

Dangerous For The Environment

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements:

Product labeling according to Regulation (EC) 1272/2008 (CLP) as amended:

Hazard pictogram(s): Not Applicable

Signal word: Not Applicable

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P273 Avoid release to the environment.

P501 Dispose of contents/container in accordance with local, regional and international regulations.

Supplemental information: No Additional Information

Precautionary statements are listed according to the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Annex III.

Regulations in individual countries/regions may determine which statements are required on the product label. See product label for specifics.

2.3. Other hazards:

PBT/vPvB criteria: This product does not meet the PBT and vPvB classification criteria.

Other hazards: No Additional Information

See Section 11 for toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixture:

CAS-No. Chemical Name Weight% EC Number Symbols

(67/548/EEC)

EU R Phrases

(67/548/EEC)

0027138-31-4 Dipropylene glycol dibenzoate 35-45 248-258-5 N R51/53

CAS-No. Chemical Name REACH Registration No. Classification (EC

1272/2008)

H Statements

(EC 1272/2008)

0027138-31-4 Dipropylene glycol dibenzoate 01-2119529241-49-0002 Aquatic Chronic 3 H412

See Section 16 for full text of R (Risk) phrases and H (Hazard) statements.

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous,

and/or present at amounts below reportable limits.

4. FIRST AID MEASURES

4.1. Description of first aid measures:

General: If irritation or other symptoms occur or persist from any route of exposure, remove the affected individual from the

area: see a physician/get medical attention.

Eye contact: Any material that contacts the eye should be washed out immediately with water. Get medical attention if

symptoms occur.

Skin contact: Wash the affected area thoroughly with plenty of soap and water. Get medical attention if symptoms occur.

Inhalation: If affected, remove to fresh air. Get medical attention if symptoms occur.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse out the mouth with water.

Get medical attention immediately.

Protection of first aid responders: Wear proper personal protective clothing and equipment.

4.2. Most important symptoms and effects, both acute and delayed:

Irritation. Pre-existing skin problems may be aggravated by prolonged or repeated contact. See section 11 for additional

information.

4.3. Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media:

Suitable: Use water spray, ABC dry chemical, foam or carbon dioxide. Water or foam may cause frothing.

Use water to keep

fire-exposed containers cool. Water spray may be used to flush spills away from exposures.

Unsuitable: None known.

5.2. Special hazards arising from substance or mixture:

Unusual fire/explosion hazards: Product is not considered a fire hazard, but will burn if ignited. Closed container may rupture

(due to build up in pressure) when exposed to extreme heat.

Hazardous combustion products: Irritating or toxic substances will be emitted upon burning, combustion or decomposition.

See section 10 (10.6 Hazardous decomposition products) for additional information.

5.3. Advice for fire-fighters:

Wear self-contained breathing apparatus (SCBA) equipped with a full facepiece and operated in a pressure-demand mode (or other positive pressure mode) and approved protective clothing. Personnel without suitable respiratory protection must leave the area to prevent significant exposure to hazardous gases from combustion, burning or decomposition. In an enclosed or poorly ventilated area, wear SCBA during cleanup immediately after a fire as well as during the attack phase of firefighting operations.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

See Section 8 for recommendations on the use of personal protective equipment. If spilled in an enclosed area, ventilate.

Eliminate ignition sources.

6.2. Environmental precautions:

Do not flush liquid into public sewer, water systems or surface waters.

6.3. Methods and material for containment and cleaning up:

Contain by diking with sand, earth or other non-combustible material. Wear proper personal protective clothing and equipment. Absorb spill with an inert material. Place into labeled, closed container; store in safe location to await disposal.

Change contaminated clothing and launder before reuse.

7. HANDLING AND STORAGE

As with any chemical product, use good laboratory/workplace procedures. Do not cut, puncture, or weld on or near the container. Wash thoroughly after handling this product. Always wash up before eating, smoking or using the facilities. Use under well-ventilated conditions. Avoid eye contact. Avoid repeated or prolonged skin contact. Avoid inhalation of aerosol, mist, spray, fume or vapor. Avoid drinking, tasting, swallowing or ingesting this product. Wash contaminated clothing before reuse. Provide eyewash fountains and safety showers in the work area.

7.2. Conditions for safe storage, including any compatibilities:

Keep away from heat, sparks and open flames. Store cool and dry, under well-ventilated conditions. Store this material away from incompatible substances (see section 10). Do not store in open, unlabeled or mislabeled containers.

Keep container closed when not in use. Empty container contains residual product which may exhibit hazards of product. Do not reuse empty container without commercial cleaning or reconditioning. Plasticizer products will soften plastic materials and as a result they should not be transported in piping systems constructed from these materials.

7.3. Specific end use(s):

Further information concerning special risk management measures: see annex of this safety data sheet (exposure scenarios).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters:

Occupational exposure limits (OEL):

Chemical Name EU OELV EU IOELV ACGIH - TWA ACGIH - STEL

Dipropylene glycol dibenzoate N/E N/E N/E N/E

Chemical Name UK WEL Ireland OEL

Dipropylene glycol dibenzoate N/E N/E

N/E=Not established (no exposure limits established for the listed substances for listed country/region/organization).

Derived No Effect Levels (DNELs) - Workers:

Chemical Name Inhalation-Acute (local) Inhalation-Acute (systemic)

Inhalation-Long Term

(local)

Inhalation-Long Term

(systemic)

Dipropylene glycol dibenzoate N/E 35.08 mg/m³ N/E 8.8 mg/m³

Chemical Name Dermal-Acute (local) Dermal-Acute (systemic) Dermal-Long Term (local)

Dermal-Long Term

(systemic)

Dipropylene glycol dibenzoate N/E 170 mg/kg bw/day N/E 10 mg/kg bw/day

Predicted No Effect Concentration (PNECs):

Chemical Name Freshwater Marine water Intermittent releases Soil

Dipropylene glycol dibenzoate 3.7 ug/L 0.37 ug/L 37 ug/L 1 mg/kg soil ww

Chemical Name Sediment (freshwater) Sediment (marine) STP Oral

Dipropylene glycol dibenzoate

Chemical Name Sediment (freshwater) Sediment (marine) STP Oral

1.49 mg/kg sediment dw;

0.323 mg/kg sediment

ww

0.149 mg/kg sediment

dw; 0.0323 mg/kg

sediment ww

10 mg/L 333 mg/kg food

N/E=Not established; N/A=Not applicable (not required); bw=body weight; dw=dry weight; ww=wet weight.

8.2. Exposure controls:

Appropriate engineering controls: Always provide effective general and, when necessary, local exhaust ventilation to draw

spray, aerosol, fume, mist and vapor away from workers to prevent routine inhalation. Ventilation must be adequate to

maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Wear eye protection.

Hand protection: Avoid skin contact when mixing or handling the material by wearing impervious and chemical resistant

gloves. In case of prolonged immersion or frequently repeated contact, gloves with breakthrough times greater than 240

minutes (protection class 5 or greater) are recommended. For brief contact or splash applications, gloves with

breakthrough times of 10 minutes or greater are recommended (protection class 1 or greater). The protective gloves to be

used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374. Suitability and durability of a glove is dependent on usage (e.g. frequency and duration of contact, other chemicals which may be handled, chemical resistance of glove material and dexterity). Always seek advice of the glove supplier as to the most suitable glove material.

Skin and body protection: Use good laboratory/workplace procedures including personal protective clothing: labcoat, safety glasses and protective gloves.

Respiratory protection: Respiratory protection is not needed with proper ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Further information: Eyewash fountains and safety showers are recommended in the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

Form: Liquid **pH:** Not Available

Appearance: Colorless to light yellow **Relative density:** 1.14

Odour: Slight aromatic **Partition coefficient (noctanol/water):**

>3 - <4

Odour threshold: Not Available % **Volatile by weight:** 2.9%

Solubility in water: Negligible **VOC:** 2.9%

ASTM D2369

Evaporation rate: <1 **Boiling point °C:** 191°C @ 5 mm Hg

Vapour pressure: <0.1 mm Hg @ 25°C **Boiling point °F:** 376°F @ 5 mm Hg

Vapour density: 11.3 (Air=1) **Flash point:** 210°C (410°F)

ASTM D-92

Viscosity: 70 cSt @ 25°C; 25 cSt @ 40°C **Autoignition temperature:** Not Available

Melting point/Freezing point: 6°C (43°F) **Flammability (solid, gas):** Not Applicable (liquid)

Oxidising properties: Not oxidizing **Flammability or explosive limits:**

LFL/LEL Not Available

UFL/UEL Not Available

Explosive properties: Not explosive **Surface tension:** 44.4 dynes/cm @ 25°C (ASTM D1331)

Decomposition temperature: Not Available

9.2. Other information:

Amounts specified are typical and do not represent a specification.

10. STABILITY AND REACTIVITY

10.1. Reactivity:

None known.

10.2. Chemical stability:

This product is stable.

10.3. Possibility of hazardous reactions:

Hazardous polymerization will not occur.

10.4. Conditions to avoid:

Excessive heat and ignition sources.

10.5. Incompatible materials:

Avoid strong acids, bases, and oxidizing agents. Avoid contact with phenols.

10.6. Hazardous decomposition products:

Carbon dioxide, carbon monoxide and hydrocarbons.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:

Information on likely routes of exposure:

General: Caution must be exercised through the prudent use of protective equipment and handling procedures to minimize exposure.

Eyes: May cause eye irritation.

Skin: May cause skin irritation.

Inhalation: High airborne concentrations of vapors resulting from heating, misting or spraying may cause irritation of the respiratory tract and mucous membranes.

Ingestion: May be harmful if swallowed. Ingestion may cause irritation.

Acute toxicity information: Not classified (based on available data, the classification criteria are not met). ATEmix (oral): >

4000 - <5000 mg/kg. ATEmix (dermal): >2000 mg/kg. ATEmix (inhal.): >200 mg/l, 4 hours.

Chemical Name Inhalation LC50 Species Oral LD50 Species Dermal LD50 Species

Dipropylene glycol dibenzoate >200 mg/L (aerosol, 4 hours)

Rat/ adult 3914 mg/kg Rat/ adult >2000 mg/kg Rat/ adult

Skin corrosion/irritation: Not classified (based on available data, the classification criteria are not met).

Chemical Name Skin irritation Species

Dipropylene glycol dibenzoate Slight irritant Rabbit/ adult

Serious eye damage/irritation: Not classified (based on available data, the classification criteria are not met).

Chemical Name Eye irritation Species

Dipropylene glycol dibenzoate Slight irritant Rabbit/ adult

Respiratory or skin sensitization: Not classified (based on available data, the classification criteria are not met).

Chemical Name Skin sensitisation Species

Dipropylene glycol dibenzoate Non-sensitizer Guinea Pig/ adult

Carcinogenicity: Not classified (based on available data, the classification criteria are not met).

Germ cell mutagenicity: Not classified (based on available data, the classification criteria are not met).

DIETHYLENE GLYCOL

DIBENZOATE: In vitro testing showed no mutagenic activity. **DIPROPYLENE GLYCOL DIBENZOATE:** In vitro testing showed no mutagenic activity.

Reproductive toxicity: Not classified (based on available data, the classification criteria are not met).

DIETHYLENE GLYCOL

DIBENZOATE: Animal studies indicated a NOAEL (no-observed-adverse-effect-level) for maternal toxicity of 1000 mg/kg/day

and for fetal toxicity of 500 mg/kg/day (rats). **DIPROPYLENE GLYCOL DIBENZOATE:** Reproductive toxicity, 2-generation

oral study in rats: NOAEL (no-observed adverse-effect-level) 500 mg/kg bw/day. Developmental toxicity, oral, rats: NOAEL of 500 mg/kg bw/day.

Specific target organ toxicity (STOT) - single exposure: Not classified (based on available data, the classification criteria are

SDS Name: Kalama* K-FLEX* 500

not met).

Specific target organ toxicity (STOT) - repeated exposure: Not classified (based on available data, the classification criteria

are not met). DIETHYLENE GLYCOL DIBENZOATE: A 13-week dietary study in rats at a dose of 2500 mg/kg/day observed

decreased body weights, blood, spleen and caecum effects which showed completed recovery within 4 weeks after exposure.

NOAEL (No-Observed-Adverse-Effect-Level), oral, rat - 1000 mg/kg bw/day. DIPROPYLENE GLYCOL DIBENZOATE: A 13-

week dietary study in rats observed decreased body weights, and liver, spleen and caecum effects at a dose of 2500

mg/kg/day which showed completed recovery within 4 weeks after exposure. NOAEL (No-Observed-Adverse-Effect-Level),

oral, rat - 1000 mg/kg bw/day.

Aspiration hazard: Not classified (based on available data, the classification criteria are not met).

Other toxicity information: No additional information available.

12. ECOLOGICAL INFORMATION

12.1. Toxicity:

Chemical Name Fish 96 hour LC50 Fish 96 hour LC50 Fish Chronic NOEC

Dipropylene glycol dibenzoate 3.7 mg/L >3 mg/L N/E

Chemical Name Invertebrates 48 hour EC50 Invertebrates 24 hour EC50 Invertebrates Chronic NOEC

Dipropylene glycol dibenzoate EL50=19.3 mg/L N/E N/E

Chemical Name Algae 96 hour EC50 Algae 72 hour EC50 Algae Chronic NOEC

Dipropylene glycol dibenzoate EL50=3.6 mg/L EL50=4.9 mg/L NOELR: 96 hour=0.46 mg/L; 72 hour=1 mg/L

12.2. Persistence and degradability:

Expected to readily biodegrade, based on similar material(s).

Chemical Name Biodegradation

Dipropylene glycol dibenzoate Readily biodegradable (OECD 301B)

12.3. Bioaccumulative potential:

Not expected to bioaccumulate.

Chemical Name Bioconcentration Factor (BCF) Log Kow

Dipropylene glycol dibenzoate <200 L/kg 3.9 (20°C)

12.4. Mobility in soil:

No specific information available.

Chemical Name Mobility in soil (Koc/Kow)

Dipropylene glycol dibenzoate 3981 @ 20°C

12.5. Results of PBT and vPvB assessment:

This product does not meet the PBT and vPvB classification criteria.

12.6. Other adverse effects:

No additional information available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

Dispose of unused contents (incineration) in accordance with national and local regulations. Dispose of container in

accordance with national and local regulations. Ensure the use of properly authorized waste management companies, where appropriate.

See Section 8 for recommendations on the use of personal protective equipment.

14. TRANSPORT INFORMATION

The information below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions.

14.1. UN number: N/A

14.2. UN proper shipping name:

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SDS Name: Kalama* K-FLEX* 500

Not regulated - See Bill of Lading for Details

14.3. Transport hazard class(es):

U.S. DOT hazard class: N/A

Canada TDG hazard class: N/A

Europe ADR/RID hazard class: N/A

IMDG Code (ocean) hazard class: N/A

ICAO/IATA (air) hazard class: N/A

A "N/A" listing for the hazard class indicates the product is not regulated for transport by that regulation.

14.4. Packing group: N/A

14.5. Environmental hazards:

Marine pollutant: Not Applicable

Hazardous substance (USA): Not Applicable

14.6. Special precautions for user:

Not Applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:

Not Applicable

15. REGULATORY INFORMATION

15.1. Safety, health and environment regulations/legislation specific for the substance or mixture:

Europe REACH (EC) 1907/2006: Applicable components are registered.

EU Authorizations and/or restrictions on use: Not Applicable

Other EU information: No Additional Information

National regulations: No Additional Information

Chemical inventories:

Regulation Status

European Inventory of Existing Chemical Substances (EINECS): Y

European List of Notified Chemical Substances (ELINCS): N

U.S. Toxic Substances Control Act (TSCA): Y

A "Y" listing indicates all intentionally added components are either listed or are otherwise compliant with the regulation. A "N" listing indicates that for one or more components: 1) there is no listing on the public inventory; 2) no information is available; or 3) the component has not been reviewed.

15.2. Chemical safety assessment:

A chemical safety assessment has been carried out for the substance or mixture.

16. OTHER INFORMATION

GENERAL INFORMATION

Classification in accordance with Annex VI to Directive 67/548/EEC.

Abbreviations:

NC = Non Classified according to Annex VI of the Dangerous Substances Directive 67/548 EEC and CHIP3.

na – not applicable nd – not determined nl – not listed nv – no data available.

REVISION COMMENTS

New format SDS

RISK PHRASES IN FULL

N Symbol

R51/53 Toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

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