



EURAM CHEMICALS LTD

SAFETY DATA SHEET (EEC)

Reference: SD 00250/14

Product: K-FLEX 975P

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

PRODUCT NAME / TRADENAME: K-FLEX 975P

CHEMICAL DESCRIPTION: blend of glycol dibenzoates

SUPPLIER	Euram Chemicals Ltd
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2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

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

Not classified as hazardous under any GHS hazard class.

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

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements:

Product labelling according to Regulation (EC) 1272/2008 (CLP):

Hazard Pictogram:	not applicable
Signal word:	not applicable
Hazard statements:	not applicable
Precautionary statements:	not applicable

Product labelling according to Directive 67/548/EEC or 1999/45/EC

Risk phrases: R52/53 Toxic to the aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety phrases: S61 Avoid release to the environment

2.3 Other hazards:

PBT/vPvB criteria: This product does not meet these classification criteria

See Section 11 for toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixture:

CAS-No.	Chemical Name	Weight %	REACH Registration No.	EC Number
0027138-31-4	Dipropylene glycol dibenzoate	10-25	Not Available	248-258-5
CAS-No.	Chemical Name	Symbols (67/548/EEC)	EU R Phrases (67/548/EEC)	Classification- H Statements (EC 1272/2008) (EC 1272/2008)
0027138-31-4	Dipropylene glycol dibenzoate	N	R51/53	Aquatic Chronic 3 H412

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

Notes: Dipropylene glycol dibenzoate: <25%.

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 INFORMATION

Remove affected person from source of contamination.

INHALATION

General first aid, rest, warmth and fresh air.

INGESTION

If swallowed, do not induce vomiting.

Never give anything by mouth to an unconscious person. Rinse mouth thoroughly and seek medical attention if discomfort persists.

SKIN CONTACT

Wash skin thoroughly with soap and water. Remove contaminated clothing and shoes. Get medical attention if irritation continues.

Launder clothing and clean shoes thoroughly before re-use. Use appropriate skin cream to prevent drying of skin.

EYE CONTACT

Check for contact lenses, which must be removed before eyes are rinsed.

Promptly rinse eyes with plenty of clean water while lifting the eyelids.

Continue to rinse for 15 minutes and until the eyes are free of all contamination.

Get medical attention if any discomfort or irritation persists.

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.

See section 9 for additional information.

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 product 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 labelled, closed container; store in safe location to await disposal.

Change contaminated clothing and launder before reuse.

6.4. References to other sections:

See Section 8 for recommendations on the use of personal protection and Section 13 for waste disposal. sources of ignition. Do not smoke. Use protective gloves, goggles and suitable protective clothing. Keep unnecessary people at a safe distance. In case of spills, beware of slippery floors and surfaces.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling:

As with any chemical product, use good laboratory/workplace procedures. Do not cut, puncture, or weld on or near the container.

Use under well-ventilated conditions. Wash thoroughly after handling this product. Always wash up before eating, smoking or using the facilities. Avoid eye contact. Avoid repeated or prolonged skin contact. Avoid inhalation of aerosol, mist, spray, fume or vapour.

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 incompatibilities:

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 mislabelled 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. Plasticiser 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):

No Additional Information.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters:

Occupational exposure limits:

Chemical Name	EU OELV	EU IOELV	ACGIH -TWA	ACGIH -STEL
Dipropylene glycol dibenzoate		N/E	N/E	N/E

Chemical Name	UK WELs
Dipropylene glycol dibenzoate	N/E

N/E=Not established (no exposure limits established for 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/m ³	N/E	8.8 mg/m ³
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	Sediment (freshwater)	Sediment (marine)
Dipropylene glycol dibenzoate	3.7 ug/L	0.37 ug/L	37 ug/L	1.49 mg/kg sediment dw; 0.323 mg/kg sediment ww	0.149 mg/kg sediment dw; 0.0323 mg/kg sediment ww
Chemical Name	Soil	STP	Oral		
Dipropylene glycol dibenzoate	1 mg/kg soil dw	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 vapour 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: lab coat, 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.

Environmental exposure controls: See Sections 6 and 12.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

Form	Liquid	pH	Not Available
Appearance	Colourless to light yellow	Relative density	1.15
Odour	Ester-like	Partition coefficient (n-octanol/water)	Not Available
Odour threshold	Not Available	%Volatile by weight	2.0%
Solubility in water	Negligible	VOC	2.0%
Evaporation rate	Slower than n-butyl acetate	Flash point	ASTM D2369 202°C (396°F) ASTM D-92
Vapour pressure	<0.1 mm Hg @ 20°C	Boiling Point °C	215°C @ 5 mm Hg

Vapour density	Heavier than air	Boiling Point °F	419°F @ 5 mm Hg
Viscosity	63 cSt @ 25°C	Autoignition Temperature	Not Available
Melting point / Freezing point	4°C (39°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	44.8 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

10.2. Chemical stability:

This product is stable.

10.3. Possibility of hazardous reactions:

Hazardous polymerisation 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.

Notes: No Additional Information.

11. TOXICOLOGICAL INFORMATION

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

11.1. Information on toxicological effects:

Information on likely routes of exposure:

General: No Additional Information

Eyes: May cause eye irritation.

Skin: May cause skin irritation. Repeated or prolonged skin contact may cause irritation.

Inhalation: High airborne concentrations of vapours 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.

Chemical Name	LC50 Inhalation	Species	LD50 Oral	Species	LD50 Skin	Species
Dipropylene glycol dibenzoate	>200 mg/L (aerosol, 4 hours)	Rat/ adult	3914 mg/kg	Rat/ adult	>2000 mg/kg	Rat/ adult
Chemical Name	LC50 Inhalation	Species	LD50 Oral	Species	LD50 Skin	Species
Dipropylene glycol dibenzoate	N/E 4462		mg/kg Mouse		>2000 mg/kg	Rabbit/ adult

Corrosion/Irritation/Sensitisation information:

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

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

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

Chemical Name	Eye Irritation Species/Dose	Skin Irritation Species/Dose	Skin Sensitisation Species/Dose
Dipropylene glycol dibenzoate	Slight irritant Rabbit/ adult	Slight irritant Rabbit/ adult	Non-sensitiser Guinea Pig/ adult

Carcinogenicity/Mutagenicity/Reproductive toxicity information:

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

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

STOT-single exposure: Not classified (based on available data, the classification criteria are not met).

STOT-repeated exposure: Not classified (based on available data, the classification criteria are not met).
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 Ecotoxicity

Chemical Name	Fish 96 hour LC50	Species	Fish 96 hour LC50	Species	Fish Chronic NOEC	Species
Dipropylene glycol dibenzoate (Fathead minnow)	3.7 mg/L	Pimephalis promelas)	>3 mg/L	Oncorhynchus mykiss (Rainbow trout)	N/E	
Chemical Name	Invertebrates 48 hour EC50	Species	Invertebrates 24 hour EC50	Species	Invertebrates Chronic NOEC	Species
Dipropylene glycol dibenzoate	EL50=19.3 mg/L	Daphnia magna	N/E	N/E		
Chemical Name	Algal 96 hour EC50	Species	Algal 72 hour EC50	Species	Algal Chronic NOEC	Species
Dipropylene glycol dibenzoate	EL50=3.6 mg/L	Selenastrum capricornutum	EL50=4.9 mg/L	Selenastrum capricornutum	NOELR: 96 hour=0.46 mg/L; 72 hour=1 mg/L	Selenastrum capricornutum

No ecological testing has been conducted on this product.

12.2. Persistence and degradability:

Chemical Name	Biodegradation
Dipropylene glycol dibenzoate	Readily biodegradable (OECD 301B)

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

12.3. Bioaccumulative potential:

Chemical Name	Bioconcentration Factor (BCF)	Log Kow
Dipropylene glycol dibenzoate	<200 L/kg	3.9 (20°C)

Not expected to bioaccumulate.

12.4. Mobility in soil:

Chemical Name	Mobility in soil (Koc/Kow)
Dipropylene glycol dibenzoate	3981 @ 20°C

No specific information available.

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

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:

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:

EU Authorizations and/or restrictions on use: Not Applicable

Other EU information: No Additional Information

National regulations: No Additional Information

Chemical inventories:

Regulation	Status
Canadian Domestic Substances List (DSL):	N
Canadian Non-Domestic Substances List (NDSL):	Y
European Inventory of Existing Chemical Substances (EINECS):	Y
European List of Notified Chemical Substances (ELINCS):	N
Europe REACH (EC) 1907/2006:	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.

Chemical inventory notes: No Additional Information

15.2. Chemical safety assessment:

Not Applicable

Notes: No Additional Information

SECTION 16: Other Information

Risk (R) phrases in the Composition section (Section 3):

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

Hazard (H) Statements in the Composition section (Section 3):

H412 Harmful to aquatic life with long lasting effects.

Reason for revision: Changes in Section(s): Not Applicable

Evaluation method for classification of mixtures: Calculation method, Read-across

Notes: No Additional Information

Legend:

EU Authorisations and/or restrictions on use: Not applicable

* : Trademark owned by Emerald Performance Materials, LLC.

ACGIH: American Conference of Governmental Industrial Hygienists

ADR/RID: European dangerous goods transport road and rail regulations

ATE: Acute Toxicity Estimate

bw: body weight

CAS No: Chemical Abstract Service Registry Number

COSHH: Control of Substances Hazardous to Health (United Kingdom)

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level

DOT: Department of Transportation (U.S.)

EC: European Community

EU: European Union
EU OELV: European Union Occupational Exposure Limit Value
EU IOELV: European Union Indicative Occupational Exposure Limit Value
GHS: Globally Harmonized System for the classification and labelling of chemical (United Nations)
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG code: International Maritime Dangerous Goods code
LFL/LEL: Lower Flammable Limit/Lower Explosive Limit
LEV: Local Exhaust Ventilation
N/A: Not Applicable
N/E: None Established
OC: Operational Conditions
OEL: Occupational Exposure Limits
PBT: Persistent, Bio accumulative, Toxic
PNEC: Predicted No Effect Concentration
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) 1907/2006
RMM: Risk Management Measures
S or Skin: Can be absorbed through the skin
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act and Regulations
TWA: Time Weighted Average (exposure for 8-hour workday)
UFL/UEL: Upper Flammable Limit/Upper Explosive Limit
UK: United Kingdom
UN: United Nations
U.S.: United States
vPvB: very Persistent, very Bio accumulative
WEL: Workplace Exposure Limits (UK)

Users Responsibility/Disclaimer of Liability

The information set forth herein is based on our current knowledge, and is intended to describe the product solely with respect to health, safety and the environment. As such, it must not be interpreted as a guarantee of any specific property of the product. As a result, the customer shall be solely responsible for deciding whether said information is suitable and beneficial.

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