



L'ISOLANTE K-FLEX

K-FLEX COLOR PAINT

Revision nr.3
Dated 4/2/2014
Printed on 20/6/2014
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Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **43196912**
Product name: K-Flex Color Paint blue

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use: **Painting product**

1.3. Details of the supplier of the safety data sheet

Name: L'Isolante K-Flex Srl
Full address: Via Leonardo da Vinci, 36
District and Country: 20877 RONCELLO (MB) Italia
Tel. +39 039 6824.1
Fax +39 039 6824350

e-mail address of the competent person responsible for the Safety Data Sheet: Kflex-Reach@isolante.com

1.4. Emergency telephone number

For urgent inquiries refer to: Centro Antiveleni Ospedale di Niguarda - Milano - Tel. +39 02 66101029

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in Directives 67/548/EEC and 1999/45/EC (and subsequent amendments and supplements). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to EC Regulation 1907/2006 and subsequent amendments.

2.2. Label elements.

Hazard labelling pursuant to Directives 67/548/EEC and 1999/45/EC and subsequent amendments and supplements.

Warning symbols: None.

Hazard sentences (R): None.

S 3/7 KEEP CONTAINER TIGHTLY CLOSED IN A COOL PLACE.
S24/25 AVOID CONTACT WITH SKIN AND EYES.

Contains: HYDROXYPHENYL-BENZOTRIAZOLE DERIVATES
May produce an allergic reaction.

Safety data sheet available for professional users on request.

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.



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SECTION 3. Composition/information on ingredients. ... / >>

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification 67/548/EEC.	Classification 1272/2008 (CLP).
2-(2-BUTOXYETHOXY)ETHANOL			
CAS. 112-34-5	5 - 7	Xi R36	Eye Irrit. 2 H319
EC. 203-961-6			
INDEX. 603-096-00-8			
Reg. no. 01-2119475104-44			
AMMONIA			
CAS. 1336-21-6	2 - 3	C R34, N R50, Note B	Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Acute 1 H400 M=1, Note B
EC. 215-647-6			
INDEX. 007-001-01-2			
Reg. no. 01-2119488876-14			
DIPROPYLENE GLYCOL MONOMETHYL ETHER			
CAS. 34590-94-8	0 - 0		
EC. 252-104-2			
INDEX. -			
Reg. no. 01-2119450011-60			
2-BUTOXYETHANOL			
CAS. 111-76-2	0,1 - 0,15	Xn R20/21/22, Xi R36/38	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC. 203-905-0			
INDEX. 603-014-00-0			
Reg. no. 01-2119475108-36			
1-METHOXY-2-PROPANOL			
CAS. 107-98-2	0,05 - 0,1	R67	Flam. Liq. 3 H226, STOT SE 3 H336
EC. 203-539-1			
INDEX. 603-064-00-3			
Reg. no. 01-2119457435-35			

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

**SECTION 5. Firefighting measures. ... / >>****5.3. Advice for firefighters.**

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.**6.1. Personal precautions, protective equipment and emergency procedures.**

FOR LIQUID PRODUCTS:

Block the leakage if there is no hazard.

FOR SOLID PRODUCTS:

If there are no contraindications, spray powder with water to prevent the formation of dust. Avoid breathing vapours/mists/gases.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

FOR LIQUID PRODUCTS: Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

FOR SOLID PRODUCTS: Use spark-proof mechanical equipment to collect the leaked product and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.**7.1. Precautions for safe handling.**

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.**8.1. Control parameters.**

Regulatory References:
United Kingdom

Éire
OEL EU

TLV-ACGIH

EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended).
Code of Practice Chemical Agent Regulations 2011.
Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
ACGIH 2012

**SECTION 8. Exposure controls/personal protection. ... / >>****2-(2-BUTOXYETHOXY)ETHANOL****Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	67,5	10	101,2	15

AMMONIA**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH		17	25	24	35

2-BUTOXYETHANOL**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
WEL	UK	123	25	246	50	SKIN
OEL	IRL	98	20	246	50	SKIN
OEL	EU	98	20	246	50	SKIN
TLV-ACGIH		97	20			

1-METHOXY-2-PROPANOL**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
WEL	UK	375	100	560	150	SKIN
OEL	IRL	375	100	568	150	
OEL	EU	375	100	568	150	SKIN
TLV-ACGIH		369	100	553	150	

DIPROPYLENE GLYCOL MONOMETHYL ETHER**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
WEL	UK	308	50			SKIN
OEL	IRL	308	50			SKIN
OEL	EU	308	50			SKIN
TLV-ACGIH		606	100	909 (C)	150 (C)	

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

TLV of solvent mixture: 21 mg/m3.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

Protect hands with category I (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in latex, PVC or equivalent.

The following should be considered when choosing work glove material: degradation, breakage times and permeation. Work glove resistance to preparations should be checked before use, as it can be unpredictable. Gloves' limit depends on the duration of exposure.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (ref. Directive 89/686/CEE and standard EN ISO 20344). Wash body with soap and water after removing overalls.

RESPIRATORY PROTECTION

If the threshold value (if available) for one or more of the substances present in the preparation for daily exposure in the workplace or to a fraction established by the company's prevention and protection service is exceeded, wear a mask with an A or universal filter, the class (1, 2 or 3) of which must be chosen according to the limit concentration of use (ref. standard EN 14387).

The use of respiratory tract protection equipment, such as masks like that indicated above, is necessary to reduce worker exposure in the absence of technical measures. The protection provided by masks is in any case limited.

If the substance in question is odourless or its olfactory threshold is higher than the relative exposure limit and in the event of an emergency, or when exposure levels are unknown or the concentration of oxygen in the workplace is less than 17% volume, wear self-contained, open-circuit compressed air breathing apparatus (ref. standard EN 137) or fresh air hose breathing apparatus for use with



full face mask, half mask or mouthpiece (ref. standard EN 138).
EYE PROTECTION
Use of protective airtight goggles (ref. standard EN 166) recommended.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	liquid
Colour	blue
Odour	characteristic
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.
Flash point.	> 60 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,138 Kg/l
Solubility	miscible
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not applicable.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.

Solid content.	45,83 %	
VOC (Directive 1999/13/EC) :	5,80 % - 66,01	g/litre.
VOC (volatile carbon) :	3,42 % - 38,88	g/litre.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

AMMONIA: corrodes aluminium, iron, zinc, copper and their alloys.

1-METHOXY-2-PROPANOL: absorbs and dissolves in water and in organic solvents, dissolves various plastic materials; it is stable but with air it may slowly form explosive peroxides.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

2-(2-BUTOXYETHOXY)ETHANOL: can react with oxidising agents. It forms peroxides with atmospheric oxygen. When it reacts with aluminium it can generate hydrogen. May form explosive mixtures with air.

1-METHOXY-2-PROPANOL: can react dangerously with strong oxidising agents and strong acids.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

2-(2-BUTOXYETHOXY)ETHANOL: avoid contact with the air.

1-METHOXY-2-PROPANOL: avoid exposure to the air.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

2-(2-BUTOXYETHOXY)ETHANOL: oxidising substances, strong acids and alkaline metals.

1-METHOXY-2-PROPANOL: oxidising agents, strong acids and alkaline metals.

**SECTION 10. Stability and reactivity. ... / >>****10.6. Hazardous decomposition products.**

AMMONIA: nitric oxides.
2-(2-BUTOXYETHOXY)ETHANOL: hydrogen.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

2-(2-BUTOXYETHOXY)ETHANOL: can be absorbed by inhalation, ingestion and skin contact; it is irritant to the skin and especially to the eyes; spleen damage may occur. Inhalation is unlikely to occur at room temperature due to the low vapour tension of the substance.

1-METHOXY-2-PROPANOL: the main way of entry is the skin, whereas the respiratory way is less important owing to the low vapour tension of the product. Concentrations above 100 ppm cause eye irritation, nose and oropharynx. At 1000 ppm disturbance in the equilibrium and severe eye irritation is observed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and ocular irritation on direct contact. No chronic effects have been reported in man.

HYDROXYPHENYL-BENZOTRIAZOLE DERIVATES

LD50 (Oral). > 5000 mg/kg
LD50 (Dermal). > 2000 mg/kg
LC50 (Inhalation). > 5,8 mg/l

AMMONIA

LD50 (Oral). 350 mg/kg Rat

2-PHENOXYETHANOL

LD50 (Oral). 1260 mg/kg Ratto
LD50 (Dermal). 5 ml/kg Coniglio

2-(2-BUTOXYETHOXY)ETHANOL

LD50 (Oral). 3384 mg/kg Rat
LD50 (Dermal). 2700 mg/kg Rabbit

2-BUTOXYETHANOL

LD50 (Oral). 615 mg/kg Rat
LD50 (Dermal). 405 mg/kg Rabbit
LC50 (Inhalation). 2,2 mg/l/4h Rat

1-METHOXY-2-PROPANOL

LD50 (Oral). 5300 mg/kg Rat
LD50 (Dermal). 13000 mg/kg Rabbit
LC50 (Inhalation). 54,6 mg/l/4h Rat

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.**HYDROXYPHENYL-BENZOTRIAZOLE DERIVATES**

LC50 - for Fish. 2,8 mg/l Oncorhynchus mykiss
EC50 - for Crustacea. 3,8 Daphnia magna
EC50 - for Algae / Aquatic Plants. > 9

AMMONIA

LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

2-PHENOXYETHANOL

LC50 - for Fish. 344 mg/l Pimephales promelas
EC50 - for Crustacea. 500 mg/l Daphnia magna
EC50 - for Algae / Aquatic Plants. 500 mg/l Scenedesmus subspicatus



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SECTION 12. Ecological information. ... / >>

2-BUTOXYETHANOL
LC50 - for Fish. 1490 mg/l Lepomis macrochirus
EC50 - for Crustacea. 1001 mg/l Daphnia magna
EC50 - for Algae / Aquatic Plants. 1840 mg/l

12.2. Persistence and degradability.

Information not available.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.**13.1. Waste treatment methods.**

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Avoid littering. Do not contaminate soil, sewers and waterways.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.**

Seveso category. None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Contained substance.
Point. 55 2-(2-BUTOXYETHOXY)ETHANOL

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Information not available.

Product not intended for uses provided for by Dir. 2004/42/CE.

**SECTION 15. Regulatory information. ... / >>**

NC = sostanze scarsamente volatili non presenti nelle tabelle del D.Lgs. 152/2006 e successive modifiche; tali sostanze non sono comunque assimilabili ad alcuna tabella/classe dello stesso decreto così come modificato.

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

R20/21/22	HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R34	CAUSES BURNS.
R36	IRRITATING TO EYES.
R36/38	IRRITATING TO EYES AND SKIN.
R50	VERY TOXIC TO AQUATIC ORGANISMS.
R67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit

**SECTION 16. Other information.** ... / >>

- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation.

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified:

09 / 15.