



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Product: **JARYLEC C101D** Page: 1 / 8
SDS No.: 001084-001 Version 2.0 Date 22.04.2008
Cancel and replace : 28.01.2008

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

Identification of the preparation : JARYLEC C101D
Recommended use : Dielectric fluid
Supplier : ARKEMA – France
CHLOROCHIMIE ET PVC
420 rue d'Estienne d'Orves
92705 Colombes Cedex
France
Téléphone : +33 (0)1 49 00 80 80
Télécopie : +33 (0)1 49 00 83 96
<http://www.arkema.com>
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2. HAZARDS IDENTIFICATION

Most important hazards:

Potential health effects : Repeated exposure may cause skin dryness or cracking.
May cause allergic skin reaction.
Environmental Effects : May cause long-term adverse effects in the aquatic environment.
Physical and chemical hazards : Thermal decomposition giving toxic products
Decomposition products: See chapter 10
Specific hazards / EC :
Repeated exposure may cause skin dryness or cracking.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation : Preparation based on :

Components

Chemical Name *)	EC-No.	CAS-No.	Concentration	Classification
Benzyltoluene	248-654-8	27776-01-8		–
Dibenzyltoluene	248-097-0	26898-17-9		R66
Cycloaliphatic Epoxide (Mw < 700)			< 1 %	Xi; R43

*) See chapter 14 for Proper Shipping Name

For the full text of the R phrases mentioned in this Section, see Section 16.



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4. FIRST AID MEASURES

- General advice : Take off immediately all contaminated clothing
- Inhalation : Inhalation of vapours due to thermal decomposition :
Move to fresh air.
Oxygen or artificial respiration if needed.
In case of problems :
Consult a physician.
- Skin contact : Wash immediately, abundantly and thoroughly with soap and water
- Eye contact : Wash immediately, abundantly and thoroughly with water
If irritation persists, consult an ophthalmologist
- Ingestion : Do NOT induce vomiting.
Consult a physician.
- Protection of first-aiders : If entering a saturated atmosphere, wear a self contained breathing apparatus

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Dry powder
Foam
Carbon dioxide (CO2)
Water
- Specific hazards : At high temperature:
Thermal decomposition gives :
Benzene
toluene
- Specific methods : Cool containers / tanks with water spray.
Ensure a system for the rapid emptying of containers
In case of fire nearby, remove exposed containers
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid contact with skin and eyes and inhalation of vapours
- Environmental precautions : Do not release into the environment
Do not let product enter drains.
Dam up.
- Recovery : Pump into a labelled inert emergency tank
Absorb the remainder with an inert absorbent material
sand, vermiculite, perlite)
- Elimination : Destroy the product by incineration. (in accordance with local and national regulations)



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7. HANDLING AND STORAGE

Handling

Technical measures/Precautions : Storage and handling precautions applicable to products:
Liquid
Probably sensitizer
Provide appropriate exhaust ventilation at machinery.
Provide showers, eye-baths.
Provide self-contained breathing apparatus nearby.

Safe handling advice : Avoid contact with the skin and the eyes.
Avoid inhalation of vapours

Storage

Technical measures/Storage conditions : Keep container tightly closed in a dry and well-ventilated place.
Provide a catch-tank in a bunded area

Incompatible products : Oxidizing agents

Packaging material

Recommended : Ordinary steel

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

General protective measures : Ensure sufficient air exchange and/or exhaust in work areas

Products of decomposition:

Benzene

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
EU OELIII	06 2004	TWA	1	3,25	-
EU OELIII	06 2004	SKIN	-	-	Can be absorbed through the skin.
ACGIH	2007	TWA	0,5	-	-
ACGIH	2007	STEL	2,5	-	-
ACGIH	2007	SKIN	-	-	Can be absorbed through the skin.

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Toluene

Source	Date	Value type	Value (ppm)	Value (mg/m3)	Remarks
EU ELV	02 2006	TWA	50	192	–
EU ELV	02 2006	STEL	100	384	–
EU ELV	02 2006	SKIN	–	–	Can be absorbed through the skin.
ACGIH	2007	TWA	20	–	–
ACGIH	01 2006	SKIN	–	–	Can be absorbed through the skin.

Personal protective equipment

Respiratory protection : High concentrations or prolonged activity:
Wear a mask, if necessary

Hand protection : Splash contact, intermittent and prolonged
PVC gloves
Glove thickness: 1,2 - 1,4 mm

Eye protection : Safety glasses

Skin and body protection : At the workplace:
Combination with delayed penetration

Intervention at incident:
Combination with delayed penetration

Hygiene measures : Avoid contact with the skin and the eyes.
Avoid inhalation of vapours

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C) : liquid

Colour : light yellow

Odour : aromatic

Pour point : < -50 °C

Flash point : 144 °C open cup (Method: Standard NF T 60 118)
154 °C Ignition temperature (Method: Standard NF T 60 118)

Autoignition temperature : 459 °C
Method: Standard A15 (D. 92/69/EEC)

Vapour pressure : 0,0034 hPa (20 °C)
1,3 hPa (100 °C)

Density : 1.010 kg/m3 (20 °C)

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999 kg/m³ (50 °C)
960 kg/m³ (80 °C)

Solubility

Water solubility : (20 °C)
immiscible

Solubility in other solvents : Soluble in most organic solvents

Viscosity, kinematic : 6,5 mm²/s (20 °C)

Surface tension : 38,24 mN/m (25 °C)

Partition coefficient: n-octanol/water : BENZYL TOLUENE :
log Kow : 4,31 - 4,40 (measured)

10. STABILITY AND REACTIVITY

Materials to avoid : Oxidizing agents

Hazardous decomposition products : At high temperature:
Thermal decomposition giving toxic products
Benzene
toluene

Further information : The product is stable under normal handling and storage conditions

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Inhalation : According to its composition, this product should not be harmful in normal conditions of use
• In animals:
At high vapour/mist concentrations
Non lethal
4 h/rat
Inhalation of vapours due to thermal decomposition:
Non lethal
Formation of carboxyhaemoglobin
Difficulty in breathing
Effect reversible within a few days

Ingestion : According to its composition, can be considered as:
Slightly harmful by ingestion
LD50/rat: 3.080 mg/kg

Dermal : According to its composition, can be considered as:
Slightly harmful in contact with skin

Local effects

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- Skin contact : • In animals:
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
- Eye contact : • In animals:
Slightly or not irritating to eyes (rabbit)
- Sensitisation
- Skin contact : CYCLOALIPHATIC EPOXIDE (MW < 700) :
Risk of skin sensitization
- Repeated dose toxicity : According to available experimental data
- By oral route: rat
No specific toxic effects
No Observed Adverse Effect Level (NOAEL): 500 mg/kg/d
- Specific effects
- Genotoxicity
- In vitro : Ames test in vitro: Inactive
- In vivo : Micronucleus test in vivo rat: Inactive

12. ECOLOGICAL INFORMATION

- Persistence and degradability
- In water : DIBENZYL TOLUENE :
Inherently biodegradable.:
Aerobic primary degradation: 100 % after 149 d
- in air : BENZYL TOLUENE :
Degradation by radicals OH :
Direct photolysis (Half-life) : 16 h
- DIBENZYL TOLUENE :
Degradation by radicals OH :
Direct photolysis (Half-life) : 8 h
- Bioaccumulation : BENZYL TOLUENE :
log Kow : 4,31 - 4,40 (measured)
- Aquatic toxicity
- Acute toxicity
- Aquatic invertebrates : No effect up to the limit of solubility.
(Daphnia)
- microorganisms : DIBENZYL TOLUENE :
ECO (Bacteria) : 1.000 mg/l

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13. DISPOSAL CONSIDERATIONS

Disposal of product : Destroy the product by incineration. (in accordance with local and national regulations)

14. TRANSPORT INFORMATION

ADR : not regulated
ADNR : not regulated
RID : not regulated
IATA Cargo : not regulated
IATA Passenger : not regulated
IMDG : not regulated

15. REGULATORY INFORMATION

EEC DIRECTIVE

Safety data sheets : according to Regulation (EC) No. 1907/2006

EC classification / labelling

Dangerous Preparations : D. 1999/45/EC amended by D. 2001/60/CE

R-phrases(s)

R66 Repeated exposure may cause skin dryness or cracking.

S-phrases(s)

S36/37 Wear suitable protective clothing and gloves.

Special labelling of certain preparations : Contains epoxy constituents. See information supplied by the manufacturer.

Inventories

: EINECS: Conforms to
TSCA: Conforms to
AICS: Conforms to
DSL: All components of this product are on the Canadian DSL list.
ENCS (JP): Conforms to
KECI (KR): Conforms to
PICCS (PH): Does not conform
INV (CN): Conforms to



