

Safety Data Sheet according to (EC) No 1907/2006

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sds no.: 352607 V003.2

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Loctite F5002 Part A

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

1.1. Product identifier

Loctite F5002 Part A

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

Intended use:

Acrylic Adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Limited

2 Bishop Square Business Park AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933 +44 1606 863762 Fax-no.:

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (DPD):

F - Highly flammable

R11 Highly flammable.

Xn - Harmful

R20 Harmful by inhalation.

Sensitizing

R43 May cause sensitisation by skin contact.

Xi - Irritant

R41 Risk of serious damage to eyes.

R37/38 Irritating to respiratory system and skin.

Dangerous for the environment

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

2.2. Label elements

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Label elements (DPD):

F - Highly flammable

Xn - Harmful





Risk phrases:

R11 Highly flammable.

R20 Harmful by inhalation.

R37/38 Irritating to respiratory system and skin.

R41 Risk of serious damage to eyes.

R43 May cause sensitisation by skin contact.

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

Safety phrases:

S16 Keep away from sources of ignition - No smoking.

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S51 Use only in well-ventilated areas.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains:

Methyl methacrylate, 2-Hydroxyethyl methacrylate, Cumene hydroperoxide

2.3. Other hazards

None if used properly.

SECTION 3: Composition/information on ingredients

General chemical description:

Part A of two part adhesive

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Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
Methyl methacrylate	201-297-1	>= 50-< 100 %	Flammable liquids 2
80-62-6	01-2119452498-28		H225
			Skin sensitizer 1
			H317
			Skin irritation 2
			H315
			Specific target organ toxicity - single
			exposure 3
			H335
2-Hydroxyethyl methacrylate	212-782-2	>= 1-< 10 %	Skin irritation 2
868-77-9	01-2119490169-29		H315
			Serious eye irritation 2
			H319
			Skin sensitizer 1
			H317
Cumene hydroperoxide	201-254-7	>= 3-< 5 %	Acute toxicity 4; Dermal
80-15-9			H312
			Specific target organ toxicity - repeated
			exposure 2
			H373
			Acute toxicity 3; Inhalation
			H331
			Acute toxicity 4; Oral
			H302
			Organic peroxides E
			H242
			Chronic hazards to the aquatic environment 2
			H411
			Skin corrosion 1B
			H314
Cumene	202-704-5	>= 0,1-< 1 %	Flammable liquids 3
98-82-8			H226
			Aspiration hazard 1
			H304
			Specific target organ toxicity - single
			exposure 3
			H335
			Chronic hazards to the aquatic environment 2
			H411

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
Methyl methacrylate	201-297-1	>= 50 - < 100 %	Xi - Irritant; R37/38
80-62-6	01-2119452498-28		R43
			F - Highly flammable; R11
2-Hydroxyethyl methacrylate	212-782-2	>= 1 -< 10 %	Xi - Irritant; R36/38
868-77-9	01-2119490169-29		R43
Cumene hydroperoxide	201-254-7	>= 3 -< 5 %	T - Toxic; R23
80-15-9			Xn - Harmful; R21/22, R48/20/22
			O - Oxidizing; R7
			C - Corrosive; R34
			N - Dangerous for the environment; R51/53
Cumene	202-704-5	>= 0,1 -< 1 %	R10
98-82-8			Xn - Harmful; R65
			Xi - Irritant; R37
			N - Dangerous for the environment; R51/53

For full text of the R-Phrases indicated by codes see section 16 'Other Information'. Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

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Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Consideration should be given to the possible effects of a faulty UV source (Stray radiation, ozone).

Skin contact:

Rinse with running water and soap.

In case of adverse health effects seek medical advice.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

SKIN: Rash, Urticaria.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

EYE: Irritation, conjunctivitis. SKIN: Redness, inflammation.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide, foam, powder

5.2. Special hazards arising from the substance or mixture

Oxides of carbon, oxides of nitrogen, irritating organic vapors.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid skin and eye contact.

Ensure adequate ventilation.

Wear protective equipment.

Remove sources of ignition.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Wash spillage site thoroughly with soap and water or detergent solution.

6.4. Reference to other sections

See advice in chapter 8

SECTION 7: Handling and storage

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7.1. Precautions for safe handling

Avoid skin and eye contact.

Keep away from sources of ignition - no smoking.

Hygiene measures:

Wash hands before work breaks and after finishing work.

Good industrial hygiene practices should be observed.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Store in original containers at 8-21°C (46.4-69.8°F) and do not return residual materials to containers as contamination may reduce the shelf life of the bulk product.

7.3. Specific end use(s)

Acrylic Adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient	ppm	mg/m ³	Туре	Category	Remarks
METHYL METHACRYLATE 80-62-6	100	416	Short Term Exposure Limit (STEL):		EH40 WEL
METHYL METHACRYLATE 80-62-6	50	208	Time Weighted Average (TWA):		EH40 WEL
CUMENE 98-82-8			Skin designation:	Can be absorbed through the skin.	EH40 WEL
CUMENE 98-82-8	50	250	Short Term Exposure Limit (STEL):		EH40 WEL
CUMENE 98-82-8	25	125	Time Weighted Average (TWA):		EH40 WEL
CUMENE 98-82-8	50	250	Short Term Exposure Limit (STEL):	Indicative	ECTLV
CUMENE 98-82-8	20	100	Time Weighted Average (TWA):	Indicative	ECTLV

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Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value	Value			Remarks
	•	•	mg/l	ppm	mg/kg	others	
Methyl methacrylate 80-62-6	aqua (freshwater)					0,94 mg/L	
Methyl methacrylate 80-62-6	aqua (marine water)					0,094 mg/L	
Methyl methacrylate 80-62-6	aqua (intermittent releases)					0,94 mg/L	
Methyl methacrylate 80-62-6	STP					10 mg/L	
Methyl methacrylate 80-62-6	sediment (freshwater)				5,74 mg/kg		
Methyl methacrylate 80-62-6	soil				1,47 mg/kg		
2-Hydroxyethyl methacrylate 868-77-9	aqua (freshwater)					0,482 mg/L	
2-Hydroxyethyl methacrylate 868-77-9	aqua (marine water)					0,482 mg/L	
2-Hydroxyethyl methacrylate 868-77-9	STP					10 mg/L	
2-Hydroxyethyl methacrylate 868-77-9	aqua (intermittent releases)					1 mg/L	
2-Hydroxyethyl methacrylate 868-77-9	sediment (freshwater)				3,79 mg/kg		
2-Hydroxyethyl methacrylate 868-77-9	sediment (marine water)				3,79 mg/kg		
2-Hydroxyethyl methacrylate 868-77-9	soil				0,476 mg/kg		

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Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Methyl methacrylate 80-62-6	worker	dermal	Acute/short term exposure - local effects	exposure - local		
Methyl methacrylate 80-62-6	worker	dermal	Long term exposure - systemic effects		13,67 mg/kg bw/day	
Methyl methacrylate 80-62-6	worker	inhalation	Long term exposure - systemic effects		210 mg/m3	
Methyl methacrylate 80-62-6	worker	dermal	Long term exposure - local effects		1,5 mg/cm2	
Methyl methacrylate 80-62-6	worker	inhalation	Long term exposure - local effects		210 mg/m3	
Methyl methacrylate 80-62-6	general population	dermal	Acute/short term exposure - local effects		1,5 mg/cm2	
Methyl methacrylate 80-62-6	general population	dermal	Long term exposure - systemic effects		8,2 mg/kg bw/day	
Methyl methacrylate 80-62-6	general population	inhalation	Long term exposure - systemic effects		74,3 mg/m3	
Methyl methacrylate 80-62-6	general population	dermal	Long term exposure - local effects		1,5 mg/cm2	
Methyl methacrylate 80-62-6	general population	inhalation	Long term exposure - local effects		105 mg/m3	
2-Hydroxyethyl methacrylate 868-77-9	worker	dermal	Long term exposure - systemic effects		1,3 mg/kg bw/day	
2-Hydroxyethyl methacrylate 868-77-9	worker	inhalation	Long term exposure - systemic effects		4,9 mg/m3	
2-Hydroxyethyl methacrylate 868-77-9	general population	dermal	Long term exposure - systemic effects	Long term 0,8 exposure -		
2-Hydroxyethyl methacrylate 868-77-9	general population	inhalation	Long term exposure - systemic effects		2,9 mg/m3	
2-Hydroxyethyl methacrylate 868-77-9	general population	oral	Long term exposure - systemic effects		0,83 mg/kg bw/day	

Biological Exposure Indices:

None

8.2. Exposure controls:

Respiratory protection:
Use only in well-ventilated areas. Ensure adequate ventilation.

Filter type: A

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Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Tightly fitting safety goggles

Skin protection:

Suitable protective clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance liquid green
Odor Acrylic

pH No data available / Not applicable
Initial boiling point No data available / Not applicable

Flash point 15 °C (59 °F); None

Decomposition temperature

Vapour pressure

No data available / Not applicable

No data available / Not applicable

Density

No data available / Not applicable

Bulk density

No data available / Not applicable

Viscosity

No data available / Not applicable

Viscosity (kinematic)

No data available / Not applicable

Explosive properties

No data available / Not applicable

Solubility (qualitative) Insoluble

(Solvent: Water) Solidification temperature No data available / Not applicable No data available / Not applicable Melting point No data available / Not applicable Flammability Auto-ignition temperature No data available / Not applicable No data available / Not applicable Explosive limits Partition coefficient: n-octanol/water No data available / Not applicable No data available / Not applicable Evaporation rate Vapor density No data available / Not applicable Oxidising properties No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with strong acids. Reaction with strong oxidants.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

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10.4. Conditions to avoid

Stable under recommended storage conditions. Heat, flames, sparks and other sources of ignition.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

Toxic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:

May cause irritation to the digestive tract.

Ingestion of large quantities may cause liver or kidney damage.

Inhalative toxicity:

Harmful by inhalation.

Irritating to respiratory system

Skin irritation:

It is irritating and sensitising to the skin

Eye irritation:

Risk of serious damage to eyes

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Cumene hydroperoxide	LD50	550 mg/kg	oral		rat	
80-15-9	LC50	220 ppm	inhalation	4 h	rat	
	LD50	500 mg/kg	dermal		rat	

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Cumene hydroperoxide	corrosive		rabbit	

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Methyl methacrylate 80-62-6	sensitising	Mouse local lymphnod e assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

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Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Methyl methacrylate 80-62-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		
2-Hydroxyethyl methacrylate 868-77-9	positive negative	in vitro mammalian chromosome aberration test bacterial reverse mutation assay (e.g Ames test)	with and without with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	negative	dermal		mouse	

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Methyl methacrylate	NOAEL=1000 ppm	inhalation	14 weeks 6 hrs/day, 5	mouse	
80-62-6			days/wk		

SECTION 12: Ecological information

General ecological information:

Do not empty into drains / surface water / ground water.

Harmful to aquatic organisms.

May cause long-term adverse effects in the aquatic environment.

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Mobility:

Cured adhesives are immobile.

Persistence and Biodegradability:

The product is not biodegradable.

Bioaccumulative potential:

No data available for the product.

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12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity	Exposure time	Species	Method
0.125 1.00	c) Pc		Study			
Methyl methacrylate 80-62-6	LC50	350 mg/l	Fish		Leuciscus idus	OECD Guideline 203 (Fish, Acute
Methyl methacrylate 80-62-6	EC50	69 mg/l	Daphnia	48 h	Daphnia magna	Toxicity Test) OECD Guideline 202 (Daphnia sp.
						Acute Immobilisation Test)
Methyl methacrylate 80-62-6	EC50	170 mg/l	Algae	4 d	Selenastrum capricornutum (new name: Pseudokirchnerella	OECD Guideline 201 (Alga, Growth
2-Hydroxyethyl methacrylate 868-77-9	LC50	227 mg/l	Fish	96 h	subcapitata) Pimephales promelas	Inhibition Test) OECD Guideline 203 (Fish, Acute
2-Hydroxyethyl methacrylate 868-77-9	EC50	380 mg/l	Daphnia	48 h	Daphnia magna	Toxicity Test) OECD Guideline 202 (Daphnia sp.
						Acute Immobilisation Test)
2-Hydroxyethyl methacrylate 868-77-9	EC50	345 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene hydroperoxide 80-15-9	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp.
						Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Cumene 98-82-8	LC50	4,8 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene 98-82-8	EC50	4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp.
						Acute Immobilisation Test)
Cumene 98-82-8	EC50	2,6 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Methyl methacrylate 80-62-6	readily biodegradable	aerobic	95 %	EU Method C.4-B (Determination of the "Ready" BiodegradabilityModified OECD Screening Test)
2-Hydroxyethyl methacrylate 868-77-9	readily biodegradable	aerobic	98 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Cumene hydroperoxide 80-15-9			18 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Cumene 98-82-8		aerobic	86 %	

12.3. Bioaccumulative potential / 12.4. Mobility in soil

	Hazardous components	LogKow Bi	ioconcentration	Exposure	Species	Temperature	Method	
L	CAS-No.		factor (BCF)	time				

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Methyl methacrylate 80-62-6	1,38				
Cumene hydroperoxide 80-15-9		9,1	calculation		OECD Guideline 305 (Bioconcentration: Flow- through Fish Test)
Cumene hydroperoxide 80-15-9	2,16				-
Cumene 98-82-8		35,5	Carassius auratus		OECD Guideline 305 (Bioconcentration: Flow- through Fish Test)
Cumene 98-82-8	3,55			23 °C	OECD Guideline 107 (Partition Coefficient (noctanol / water), Shake Flask Method)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

Dispose of as unused product.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

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SECTION 14: Transport information

14.1. UN number

ADR	1133
RID	1133
ADNR	1133
IMDG	1133
IATA	1133

14.2. UN proper shipping name

ADR	ADHESIVES
RID	ADHESIVES
ADNR	ADHESIVES
IMDG	ADHESIVES
IATA	Adhesives

14.3. Transport hazard class(es)

ADR	3
	3
RID	3
	3
ADNR	3
	3
IMDG	3
	3
IATA	3
	-

14.4. Packaging group

ADR	II
RID	II
ADNR	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADNR	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	Special provision 640D
	Tunnelcode: (D/E)
RID	Special provision 640D
ADNR	Special provision 640D
IMDG	not applicable
IATA	not applicable

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

not applicable

SECTION 15: Regulatory information

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(1999/13/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

R10 Flammable.

R11 Highly flammable.

R21/22 Harmful in contact with skin and if swallowed.

R23 Toxic by inhalation.

R34 Causes burns.

R36/38 Irritating to eyes and skin.

R37 Irritating to respiratory system.

R37/38 Irritating to respiratory system and skin.

R43 May cause sensitisation by skin contact.

R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

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

R65 Harmful: may cause lung damage if swallowed.

R7 May cause fire.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H242 Heating may cause a fire.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and it's subsequent amendments, and Commission Directive 1999/45/EC.