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

1.1 Product identifier

Trade name : Sikaflex[®]-591

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

Product use : Sealant/adhesive

1.3 Details of the supplier of the safety data sheet

Company name of supplier	:	Sika Limited
		Watchmead Welwyn Garden City
		Hertfordshire. AL7 1BQ
Telephone	:	+44 (0)1707 394444
Telefax	:	+44 (0)1707 329129
E-mail address of person	:	EHS@uk.sika.com
responsible for the SDS		

1.4 Emergency telephone number

National Chemical Emergency Centre (NCEC) 24 Hour Emergency Telephone Number +44 870 190 6777

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Additional Labelling

EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not
	breathe spray or mist.

EUH208 Contains 2-octyl-2H-isothiazole-3-one (OIT), Pentamethylpiperidinol-substituted polyester, trimethoxyvinylsilane. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.



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Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Contains a biocide in order to protect the product. Active ingredient: 2-octyl-2H-isothiazole-3-one (OIT), 26530-20-1. Please use treated articles responsibly.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Registration number		
distillates (petroleum), hydrotreat-	64742-55-8	Asp. Tox. 1; H304	>= 2,5 - < 5
ed light paraffinic	265-158-7	EUH066	
	01-2119487077-29-		
	XXXX		
Pentamethylpiperidinol-	85631-00-1	Acute Tox. 4; H302	>= 0,25 - < 1
substituted polyester	287-947-5	Eye Irrit. 2; H319	
	01-2120771539-41-	Skin Sens. 1; H317	
	XXXX	Aquatic Chronic 4;	
		H413	
		M-Factor (Acute	-
		aquatic toxicity): 1	
		M-Factor (Chronic	
		aquatic toxicity): 1	
			-
		Acute toxicity esti-	
		mate	
		Acute oral toxicity:	
		1.900 mg/kg	

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trimethoxyvinylsilane Contains: tetramethyl orthosilicate <= 0,2 %	2768-02-7 220-449-8 01-2119513215-52- XXXX	Flam. Liq. 3; H226 Acute Tox. 4; H332 Skin Sens. 1B; H317	< 1
		Acute toxicity esti- mate	
		Acute inhalation tox- icity (vapour): 16,8	
2-octyl-2H-isothiazole-3-one (OIT)	26530-20-1 247-761-7 01-2120768921-45- XXXX	mg/lAcute Tox. 3; H301Acute Tox. 2; H330Acute Tox. 3; H311Skin Corr. 1; H314Eye Dam. 1; H318Skin Sens. 1A; H317Aquatic Acute 1;H400Aquatic Chronic 1;H410EUH071M-Factor (Acuteaquatic toxicity):100100M-Factor (Chronicaquatic toxicity):100100Specific concentrationlimitSkin Sens. 1A; H317>= 0,0015 %Acute toxicity estimateAcute oral toxicity:125 mg/kgAcute inhalation toxicity (dust/mist): 0,27mg/l0,27 mg/lAcute dermal toxicity:311 mg/kg311 mg/kg	>= 0,0002 - < 0,0015





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Substances with a workplace ex	xposure limit :	1
Titanium dioxide (> 10 μm)	13463-67-7 236-675-5 01-2119489379-17- XXXX	>= 2,5 - < 5
For explanation of abbreviations	s see section 16.	

SECTION 4: First aid measures

4.1 Description of first aid meas	4.1 Description of first aid measures					
General advice	:	No hazards which require special first aid measures.				
If inhaled	:	Move to fresh air.				
In case of skin contact	:	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.				
In case of eye contact	:	Remove contact lenses. Keep eye wide open while rinsing.				
If swallowed	:	Do not induce vomiting without medical advice. Rinse mouth with water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.				
4.2 Most important symptoms a	nd e	effects, both acute and delayed				
Symptoms	:	See Section 11 for more detailed information on health effects and symptoms.				
Risks	:	No known significant effects or hazards.				
4.3 Indication of any immediate	me	dical attention and special treatment needed				
Treatment	:	Treat symptomatically.				

SECTION 5: Firefighting measures

5.1 Extinguishing media		
Suitable extinguishing media	:	In case of fire, use water/water spray/water jet/carbon diox- ide/sand/foam/alcohol resistant foam/chemical powder for extinction.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion prod- : No hazardous combustion products are known



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ucts			
5.3 Advice for firefighters			
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing	g apparatus.
Further information	:	Standard procedure for chemical fires.	
SECTION 6: Accidental releas	se i	measures	
6.1 Personal precautions, protec	ctiv	e equipment and emergency procedures	
Personal precautions	:	For personal protection see section 8.	
6.2 Environmental precautions			
Environmental precautions	:	No special environmental precautions required.	
6.3 Methods and material for co	ntai	inment and cleaning up	
			aa)
Methods for cleaning up	:	Wipe up with absorbent material (e.g. cloth, fleed Keep in suitable, closed containers for disposal.	<i>:</i> e).
6.4 Reference to other sections	:	Keep in suitable, closed containers for disposal.	;e).
	: ecti	Keep in suitable, closed containers for disposal.	<i>:e)</i> .
6.4 Reference to other sections For personal protection see se		Keep in suitable, closed containers for disposal. on 8.	.e).
6.4 Reference to other sections	ora	Keep in suitable, closed containers for disposal. on 8.	
6.4 Reference to other sections For personal protection see se SECTION 7: Handling and sto	ora	Keep in suitable, closed containers for disposal. on 8.	
 6.4 Reference to other sections For personal protection see set SECTION 7: Handling and stores 7.1 Precautions for safe handling	ora	Keep in suitable, closed containers for disposal. on 8. ge For personal protection see section 8. No special handling advice required. Follow standard hygiene measures when handlir	
 6.4 Reference to other sections For personal protection see se SECTION 7: Handling and sto 7.1 Precautions for safe handling Advice on safe handling 	praę g :	Keep in suitable, closed containers for disposal. on 8. ge For personal protection see section 8. No special handling advice required. Follow standard hygiene measures when handlir products	ng chemical
 6.4 Reference to other sections For personal protection see section SECTION 7: Handling and stoce 7.1 Precautions for safe handling Advice on safe handling Advice on protection against fire and explosion Hygiene measures 	pra g : :	Keep in suitable, closed containers for disposal. on 8. ge For personal protection see section 8. No special handling advice required. Follow standard hygiene measures when handlir products Normal measures for preventive fire protection. When using do not eat or drink. When using do r	ng chemical
 6.4 Reference to other sections For personal protection see se SECTION 7: Handling and sto 7.1 Precautions for safe handling Advice on safe handling Advice on protection against fire and explosion 	pra g : :	Keep in suitable, closed containers for disposal. on 8. ge For personal protection see section 8. No special handling advice required. Follow standard hygiene measures when handlir products Normal measures for preventive fire protection. When using do not eat or drink. When using do r Iuding any incompatibilities	ng chemical not smoke.



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Further information on stor- age stability	:	No decomposition if stored and applied as dir	ected.
7.3 Specific end use(s) Specific use(s)	:	Consult most current local Product Data Sheeuse.	et prior to any

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters *	Basis *
Titanium dioxide (> 10 μm)	13463-67-7	TWA (inhalable dust)	10 mg/m3	GB EH40
		TWÁ (Respirable dust)	4 mg/m3	GB EH40

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters *	Basis *		
methanol	67-56-1	TWA	200 ppm 260 mg/m3	2006/15/EC		
		Further information: Indicative, Identifies the possibility of signifi- cant uptake through the skin				
		TŴA	200 ppm 266 mg/m3	GB EH40		
	signed subst	Further information: Can be absorbed through the skin. The as- signed substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.				
		STEL	250 ppm 333 mg/m3	GB EH40		

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

	facturer specifications.	
Hand protection	Chemical-resistant, impervious gloves complying proved standard must be worn at all times when h chemical products. Reference number EN 374. Fe	andling
Eye/face protection	Safety glasses	



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Skin and body protection	Butyl rubber/nitrile rubber gloves (> 0,1 m Recommended: Butyl rubber/nitrile rubber Protective clothing (e.g. Safety shoes acc long-sleeved working clothing, long trouse and protective boots are additionaly recom and stirring work.	r gloves. . to EN ISO 20345, ers). Rubber aprons
Respiratory protection	 In case of inadequate ventilation wear rest Respirator selection must be based on kn exposure levels, the hazards of the produ- ing limits of the selected respirator. organic vapor filter (Type A) A1: < 1000 ppm; A2: < 5000 ppm; A3: < 1 Ensure adequate ventilation. This can be exhaust extraction or by general ventilation ods for determining inhalation exposure). ticular to the mixing / stirring area. In case to keep the concentrations under the occu- limits then respiration protection measures 	0000 ppm achieved by local on. (EN 689 - Meth- This applies in par- e this is not sufficent upational exposure

Environmental exposure controls

General advice : No special environmental precautions required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state Appearance Colour	:	liquid paste various		
Odour	:	slight		
Melting point/range / Freezing point	:	No data available		
Boiling point/boiling range	:	No data available		
Flammability (solid, gas)	:	No data available		
Upper/lower flammability or explosive limits				

Upper explosion limit / Up- : No data available per flammability limit



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: No data available	
: ca. 101 °C Method: closed cup	
: No data available	
: No data available	
: Not applicable substance/mixture is non-soluble (in water	.)
: Not applicable	
: Not applicable	
: insoluble	
: No data available	
: 0,01 hPa	
: ca. 1,51 g/cm3 (20 °C)	
: No data available	
: No data available	
	 No data available ca. 101 °C Method: closed cup No data available No data available Not applicable substance/mixture is non-soluble (in water Not applicable Not applicable Not applicable Insoluble Insoluble No data available Q,01 hPa ca. 1,51 g/cm3 (20 °C) No data available

9.2 Other information

No data available



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SECTION 10: Stability and	reactivity	
10.1 Reactivity		
No dangerous reaction know	own under conditions of normal use.	
10.2 Chemical stability		
The product is chemically	stable.	
10.3 Possibility of hazardous	reactions	
Hazardous reactions	: No hazards to be specially mentioned.	
10.4 Conditions to avoid		
Conditions to avoid	: No data available	
10.5 Incompatible materials		
Materials to avoid	: No data available	
10.6 Hazardous decomposition	on products	
	: methanol	

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute	toxicity
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Not classified based on available information.

Components:

Pentamethylpiperidinol-substituted polyester:

Acute oral toxicity	:	LD50 Oral (Rat): 1.900 mg/kg
		Acute toxicity estimate: 1.900 mg/kg Method: Calculation method
trimethoxyvinylsilane:		
Acute oral toxicity	:	LD50 Oral (Rat): ca. 7.120 mg/kg
Acute inhalation toxicity	:	LC50: ca. 16,8 mg/l Exposure time: 4 h Test atmosphere: vapour
		Acute toxicity estimate: 16,8 mg/l Test atmosphere: vapour Method: Calculation method



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Acute dermal toxicity	: LC)50: 3.540 mg/kg	
2-octyl-2H-isothiazole-3-o	ne (OIT):		
Acute oral toxicity	M	cute toxicity estimate: 125 mg/kg ethod: Acute toxicity estimate accord p. 1272/2008	ling to Regulation (EC)
	M	cute toxicity estimate: 125 mg/kg ethod: Acute toxicity estimate accord p. 1272/2008	ling to Regulation (EC)
Acute inhalation toxicity	Te M	cute toxicity estimate: 0,27 mg/l est atmosphere: dust/mist ethod: Acute toxicity estimate accord p. 1272/2008	ling to Regulation (EC)
	Te M	cute toxicity estimate: 0,27 mg/l est atmosphere: dust/mist ethod: Acute toxicity estimate accord p. 1272/2008	ling to Regulation (EC)
Acute dermal toxicity	M	cute toxicity estimate: 311 mg/kg ethod: Acute toxicity estimate accord p. 1272/2008	ling to Regulation (EC)
	M	cute toxicity estimate: 311 mg/kg ethod: Acute toxicity estimate accord p. 1272/2008	ling to Regulation (EC)
Skin corrosion/irritation Not classified based on ava	ilable info	ormation.	
Components:			
distillates (petroleum), hy	drotreate	ed light paraffinic:	
Assessment	: Re	epeated exposure may cause skin dr	ryness or cracking.
Serious eye damage/eye i Not classified based on ava		ormation.	
Respiratory or skin sensit	isation		
Skin sensitisation Not classified based on ava	ilable info	prmation.	
Respiratory sensitisation Not classified based on ava	ilable info	prmation.	
ountry GB 10000009489			10 / 16



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Germ cell mutagenicity Not classified based on available	information.					
Carcinogenicity Not classified based on available information.						
Reproductive toxicity Not classified based on available information.						
STOT - single exposure Not classified based on available	STOT - single exposure Not classified based on available information.					
STOT - repeated exposure Not classified based on available information.						
Aspiration toxicity Not classified based on available information.						
11.2 Information on other hazards						
Endocrine disrupting propertie	S					
Product: Assessment :	The substance/mixture does not contain ered to have endocrine disrupting prope REACH Article 57(f) or Commission De (EU) 2017/2100 or Commission Regula levels of 0.1% or higher.	erties according to elegated regulation				

SECTION 12: Ecological information

12.1 Toxicity

Components:

Pentamethylpiperidinol-substituted polyester:

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M-Factor (Acute aquatic tox- : 1 icity)
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M-Factor (Chronic aquatic : 1 toxicity)

2-octyl-2H-isothiazole-3-one (OIT):

M-Factor (Acute aquatic tox- : 100 icity)

100

M-Factor (Chronic aquatic : 100 toxicity)



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	100		
12.2 Persistence and degradabil No data available	ity		
12.3 Bioaccumulative potential No data available			
12.4 Mobility in soil No data available			
12.5 Results of PBT and vPvB as	ssessment		
Product:			
Assessment	to be e very pe	ubstance/mixture contains no c ither persistent, bioaccumulativ ersistent and very bioaccumula or higher	ve and toxic (PBT), or
12.6 Endocrine disrupting prope	rties		
Product:			
Assessment	ered to REACI (EU) 2	Ibstance/mixture does not cont have endocrine disrupting pro H Article 57(f) or Commission I 017/2100 or Commission Regu of 0.1% or higher.	operties according to Delegated regulation
12.7 Other adverse effects			
<u>Product:</u> Additional ecological infor- mation	: There	is no data available for this pro	duct.
SECTION 13: Disposal consid	lerations		
13.1 Waste treatment methods	. The	norotion of worth chauld be a	uided or minimized
Product	wherev Empty	eneration of waste should be av ver possible. containers or liners may retain aterial and its container must b	some product residues. be disposed of in a safe

Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional



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	local authority requirements. Avoid dispersal of spilled material and r soil, waterways, drains and sewers.	runoff and contact with	
European Waste Catalogue	: 08 04 09* waste adhesives and sealan solvents or other dangerous substance		

SECTION 14: Transport information

14.1 UN number or ID number		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.2 UN proper shipping name		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.3 Transport hazard class(es)		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.4 Packing group		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA (Cargo)	:	Not regulated as a dangerous good
IATA (Passenger)	:	Not regulated as a dangerous good
14.5 Environmental hazards		
Not regulated as a dangerous	go	od
14.6 Special precautions for use	r	

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.



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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (A	REACH List of restrictions (Annex 17)				
	UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation				
The Persistent Organic Pollutants Regulation (EU) 2019/1021 as ar ain)	:	Not applicable			
International Chemical Weapons Schedules of Toxic Chemicals ar	:	Not applicable			
Regulation (EC) No 1005/2009 or plete the ozone layer	:	Not applicable			
UK REACH List of substances su (Annex XIV)	:	Not applicable			
GB Export and import of hazardous chemicals - Prior : Not applicable Informed Consent (PIC) Regulation					
Control of Major Accident Hazard 2015 (COMAH)	ls Regulations	Not	t applicable		
Volatile organic compounds :	Law on the incentive t (VOCV)	ax for volatile organic compounds			
	Volatile organic compounds (VOC) content: 0% w/w no VOC duties				
	Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 0% w/w				

If other regulatory information applies that is not already provided elsewhere in the Safety Data Sheet, then it is described in this subsection.

Health, safety and environ-	:	Environmental Protection Act 1990 & Subsidiary Regulations
mental regulation/legislation		Health and Safety at Work Act 1974 & Subsidiary Regulations
specific for the substance or		Control of Substances Hazardous to Health Regulations



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mixture:

(COSHH) May be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments.

Other regulations:

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Full text of H-Statements

H226 H301 H302 H304 H311 H314 H317 H318 H319 H330 H332 H400 H410 H413		Flammable liquid and vapour. Toxic if swallowed. Harmful if swallowed. May be fatal if swallowed and enters airways. Toxic in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Causes serious eye damage. Causes serious eye irritation. Fatal if inhaled. Harmful if inhaled. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. May cause long lasting harmful effects to aquatic life.
Full text of other abbreviation Acute Tox.	ons :	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Asp. Tox.	÷	Aspiration hazard
Eye Dam. Eye Irrit.	÷	Serious eye damage Eye irritation
Flam. Liq.	÷	Flammable liquids
Skin Corr.	÷	Skin corrosion
Skin Sens.	:	Skin sensitisation
2006/15/EC	:	Europe. Indicative occupational exposure limit values
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
2006/15/EC / TWA	:	Limit Value - eight hours
GB EH40 / TWA	÷	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL ADR	÷	Short-term exposure limit (15-minute reference period) European Agreement concerning the International Carriage of
AUN	•	Dangerous Goods by Road
CAS	:	Chemical Abstracts Service
DNEL	:	Derived no-effect level
EC50	:	Half maximal effective concentration
GHS	:	Globally Harmonized System
ΙΑΤΑ	:	International Air Transport Association



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IMDG :	International Maritime Code for Dangerous Goods	
LD50 :	Median lethal dosis (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)	
LC50 :	Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)	
MARPOL :	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978	
OEL :	Occupational Exposure Limit	
PBT :	Persistent, bioaccumulative and toxic	
PNEC :	Predicted no effect concentration	
REACH :	Regulation (EC) No 1907/2006 of the European and of the Council of 18 December 2006 conce istration, Evaluation, Authorisation and Restricti cals (REACH), establishing a European Chemic	rning the Reg- on of Chemi-
SVHC : vPvB :	Substances of Very High Concern Very persistent and very bioaccumulative	<u> </u>

Further information

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

Changes as compared to previous version !

GB / EN