

CHLORPYRIFOS-METHYL UNLABELED 100 UG/ML IN NONANE

Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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ULM-9538-S

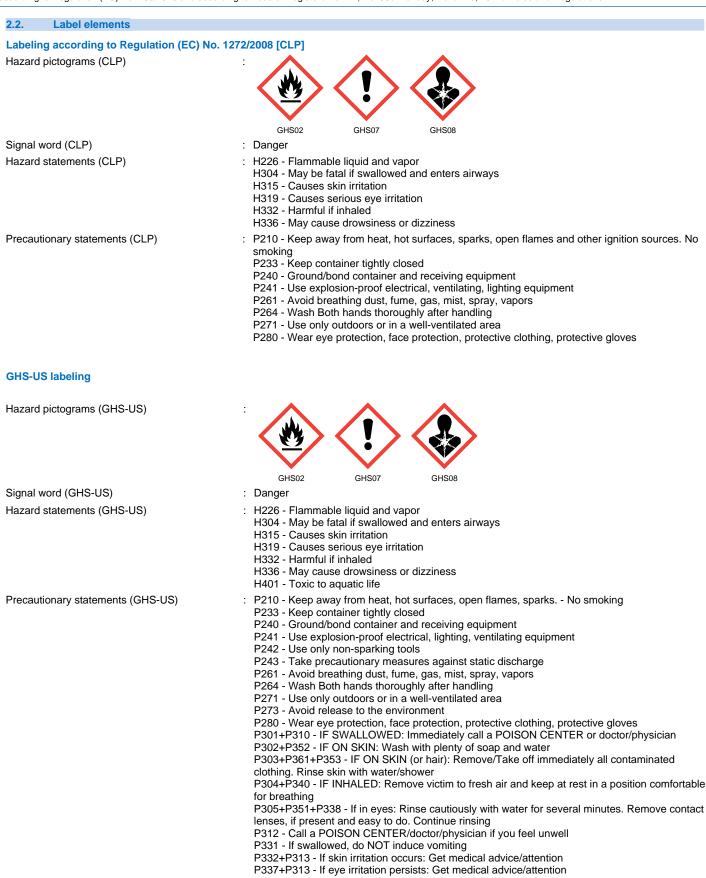
SECTION 1: Identification of the s	ubstance/mixture and of the company/undertaking
1.1. Product identifier	
Product form	: Mixtures
Product name.	: CHLORPYRIFOS-METHYL UNLABELED 100 UG/ML IN NONANE
Product code	: ULM-9538-S
1.2. Relevant identified uses of the su	Ibstance or mixture and uses advised against
1.2.1. Relevant identified uses	
Industrial/Professional use spec	: For professional use only.
1.2.2. Uses advised against	
No additional information available	
1.3. Details of the supplier of the safe	ty data sheet
Cambridge Isotope Laboratories, Inc.	
50 Frontage Road Andover, MA 01810 USA	
USA: 1-800-322-1174 Int: 1-978-749-8000 cilsales@isotope.com www.isotope.com	
Emergency telephone number	
Emergency numbers:	
Chemtrec: 1-800-424-9300 (24 hours) International: 1-202-483-7616 (24 hours)	
SECTION 2: Hazards identification	
2.1. Classification of the substance o	
Classification according to Regulation (EC	:) No. 1272/2008 [CLP]
Flam. Liq. 3	H226
Acute Tox. 4 (Inhalation:gas)	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
STOT SE 3	H336
Asp. Tox. 1	H304
Full text of H-phrases: see section 16	
Classification apporting to Directive 07/54	8/EEC or 1000/45/EC
Classification according to Directive 67/54	0/EC 01 1333/43/EC
Xn; R20 Xn; R65	
N; R51/53	
R10	
Full text of R-phrases: see section 16	
Classification (GHS-US)	
Flam. Liq. 3	H226
Acute Tox. 4 (Inhalation)	H332
Skin Irrit. 2	H315
Eye Irrit. 2A STOT SE 3	H319 H336
Asp. Tox. 1	H304

Adverse physicochemical, human health and environmental effects

Central Nervous System.

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P362 - Take off contaminated clothing and wash before reuse

P370+P378 - In case of fire: Use Alcohol resistant foam., Carbon dioxide., Dry chemical. for extinction

P403+P233 - Store in a well-ventilated place. Keep container tightly closed

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P403+P235 - Store in a well-ventilated place. Keep cool

P405 - Store locked up

P501 - Dispose of contents/container to Comply with applicable regulations.

2.3. **Other hazards**

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable Mixtures 32

Name	Product identifier	%	Classification according to Directive 67/548/EEC
N-NONANE UNLABELED	(CAS No)111-84-2 (EC no)203-913-4	99.9861	R10 Xn; R20 Xn; R65 R67
CHLORPYRIFOS-METHYL UNLABELED	(CAS No)5598-13-0 (Unlabeled) (EC no)227-011-5 (EC index no)015-186-00-9	0.0139	T; R23 Xn; R22 R42 N; R50/53
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
N-NONANE UNLABELED	(CAS No)111-84-2 (EC no)203-913-4	99.9861	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336 Asp. Tox. 1, H304
CHLORPYRIFOS-METHYL UNLABELED	(CAS No)5598-13-0 (Unlabeled) (EC no)227-011-5 (EC index no)015-186-00-9	0.0139	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation:dust,mist), H331 Resp. Sens. 1, H334 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410
Name	Product identifier	%	Classification (GHS-US)
N-NONANE UNLABELED	(CAS No)111-84-2	99.9861	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H336 Asp. Tox. 1, H304

Full text of R-, H- and EUH-phrases: see section 16

4.1. Description of first aid measu	es
First-aid measures general	: Move out of dangerous area. Consult a physician and show this safety data sheet.
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.
First-aid measures after ingestion	: Immediately call a POISON CENTER or doctor/physician.
4.2. Most important symptoms and	l effects, both acute and delayed
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways.
4.3. Indication of any immediate m	edical attention and special treatment needed

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SECTION 5: Firefighting	measures	
5.1. Extinguishing media suitable extinguishing media	fires, apply water from	edia such as "alcohol" foam, dry chemical, or carbon dioxide. For large as far as possible. Use very large quantities (flooding) of water applied id streams of water may be ineffective. Cool all affected containers with vater.
5.2. Special hazards arisi	ng from the substance or mixture	
Fire hazard	: Flammable liquid and	vapor.
Explosion hazard	: May form flammable/e	xplosive vapor-air mixture.
Reactivity	: Vapors may form expl	osive mixture with air.
5.3. Advice for firefighters	•	
Firefighting instructions	: Use water spray to coo	•
Protection during firefighting	: Do not enter fire area	without proper protective equipment, including respiratory protection.
SECTION 6: Accidental r	elease measures	
6.1. Personal precautions	, protective equipment and emergency	procedures
General measures	: Remove ignition sourc smoking.	es. Use special care to avoid static electric charges. No naked lights. No
6.1.1. For non-emergency p	ersonnel	
Emergency procedures	ventilation. Remove al	e equipment. Avoid breathing vapors, mist or gas. Ensure adequate I sources of ignition. Evacuate personnel to safe areas. Beware of to form explosive concentrations. Vapours can accumulate in low areas.
6.1.2. For emergency respo	nders	
Protective equipment	: Avoid breathing dust, i	mist or spray.
6.2. Environmental preca	itions	
Prevent entry to sewers and publ	ic waters.	
6.3. Methods and material	for containment and cleaning up	
For containment		collect with non-combustible absorbent material. Disposal should be in cable Federal, State and local regulations.
6.4. Reference to other se		
No additional information availab	e	
SECTION 7: Handling an	d storage	
7.1. Precautions for safe I		
Additional hazards when process		ers with care because residual vapors are flammable.
Precautions for safe handling	5	noking. Take precautionary measures against static discharge. Use only e only outdoors or in a well-ventilated area. Avoid breathing dust, mist o
Hygiene measures	: Handle in accordance breaks and at the end	with good industrial hygiene and safety practice. Wash hands before of workday.
	orage, including any incompatibilities	
Technical measures	container and receivin	edures to avoid static electricity should be followed. Ground/bond g equipment. Use explosion-proof electrical equipment.
Storage conditions	1	ture away from light and moisture.
Incompatible materials	: Heat sources.	
7.3. Specific end use(s)		
No additional information availab		
	ontrols/personal protection	
8.1. Control parameters		
	ILABELED 100 UG/ML IN NONANE	
Italy - Portugal- USA ACGIH	ACGIH TWA (ppm)	200.000000000 ppm Central Nervous System impairment.
N-NONANE UNLABELED (111		
Italy - Portugal- USA ACGIH	ACGIH TWA (ppm)	200.0000000000 ppm Central Nervous System impairment.

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8.2. Exposure controls

- Personal protective equipment
- : Protective clothing. Protective goggles. Self-contained breathing apparatus. Gloves.



Hand protection
Eye protection
Skin and body protection
Respiratory protection

- : Wear suitable protective clothing and gloves.
- : Wear safety glasses with side shields (or goggles) and a face shield.
- : Wear suitable protective clothing.
- : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture.		
Physical state	: Liquid	
Appearance	: Liquid.	
Molecular mass	: 322.53	
Color	: No data available.	
Odor	: No data available	
Odor threshold	: No data available	
рН	: No data available	
Relative evaporation rate (butyl acetate=1)	: No data available	
Melting point	: -53 °C (- 63 °F) - lit	
Freezing point	: No data available	
Boiling point	: 151 °C (304 °F) - lit	
Flash point	: 31.0 °C (87.8 °F) - closed cup	
Self ignition temperature	: 205 °C (401 °F)	
Decomposition temperature	: No data available	
Flammability (solid, gas)	: Flammable liquid and vapor	
Vapor pressure	: 12.4 hPa (9.3 mmHg) at 37.7 °C (99.9 °F)	
Relative vapor density at 20 °C	: No data available	
Relative density	: No data available	
Solubility	: Water: 0 %	
Log Pow	: 5.65	
Log Kow	: No data available	
Viscosity, kinematic	: No data available	
Viscosity, dynamic	: No data available	
Explosive properties	: No data available	
Oxidizing properties	: No data available	
Explosive limits	: 0.87 - 2.9 % (V)	

9.2. Other information

No additional information available

SECTIC	ON 10: Stability and reactivity
10.1.	Reactivity
Vapors ma	ay form explosive mixture with air.
10.2.	Chemical stability
See storag	ge and expiration date on CoA.
10.3.	Possibility of hazardous reactions
No additio	nal information available
10.4.	Conditions to avoid
Open flam	ne. Overheating. Direct sunlight. Heat. Sparks.
10.5.	Incompatible materials
Strong oxi	idizing agents.

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10.6. Hazardous decomposition products		
May release flammable gases.		
SECTION 11: Toxicological informati	on	
11.1. Information on toxicological effects		
Acute toxicity	: Harmful if inhaled.	
CHLORPYRIFOS-METHYL UNLABELED 100	UG/ML IN NONANE	
LC50 inhalation rat (ppm)	3200 ppm/4h	
ATE (gases)	4500.000 ppmV/4h	
ATE (dust, mist)	1.500 mg/l/4h	
N-NONANE UNLABELED (111-84-2)		
LC50 inhalation rat (ppm)	3200 ppm/4h	
ATE (dust, mist)	1.500 mg/l/4h	
CHLORPYRIFOS-METHYL UNLABELED (559	8-13-0 (Unlabeled))	
LD50 oral rat	1828 mg/kg	
LD50 dermal rabbit	> 2000 mg/kg	
LC50 inhalation rat (mg/l)	> ≥ 670 mg/m³	
ATE (oral)	1828.000 mg/kg body weight	
ATE (vapors)	0.670 mg/l/4h	
ATE (dust, mist)	0.670 mg/l/4h	
Skin corrosion/irritation	: Causes skin irritation.	
	Skin - rat - Skin irritation - Draize test	
Serious eye damage/irritation	: Causes serious eye irritation.	
	No data available	
Respiratory or skin sensitization	: Not available	
	No data available	
Germ cell mutagenicity	: Not available	
Carcinogenicity	: Not classified	
Reproductive toxicity	: Not available	
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.	
	May cause drowsiness or dizziness.	
Specific target organ toxicity (repeated	Not classified	
exposure)	No data available	
Aspiration hazard	: May be fatal if swallowed and enters airways.	
Potential Adverse human health effects and symptoms	: Harmful if inhaled.	
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness.	
Symptoms/injuries after skin contact	: Causes skin irritation.	
Symptoms/injuries after eye contact	: Causes eye irritation.	
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways.	

SECTION 12: Ecological information

12.1. Toxicity

CHLORPYRIFOS-METHYL UNLABELED (5598-13-0 (Unlabeled))	
LC50 fish 1	0.3 mg/l Oncorhynchus mykiss (Rainbow trout) -96 h
EC50 Daphnia 1	0.001 mg/l Daphnia magna (Water flea) -48 h
· · ·	

12.2. Persistence and degradability		
CHLORPYRIFOS-METHYL UNLABELED 100 UG/ML IN NONANE		
Persistence and degradability Not available.		
N-NONANE UNLABELED (111-84-2)		
Persistence and degradability	Not available.	

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CHLORPYRIFOS-METHYL UNLABELED (5598-13-0 (Unlabeled))		
Persistence and degradability	Not available.	
12.3. Bioaccumulative potential		
CHLORPYRIFOS-METHYL UNLABELED 1	00 UG/ML IN NONANE	
Log Pow	5.65	
Bioaccumulative potential	Indication of bioaccumulation.	
N-NONANE UNLABELED (111-84-2)		
Log Pow	5.65	
Bioaccumulative potential	Indication of bioaccumulation.	
CHLORPYRIFOS-METHYL UNLABELED (5598-13-0 (Unlabeled))	
Bioaccumulative potential	Not available.	
12.4. Mobility in soil		
CHLORPYRIFOS-METHYL UNLABELED 1	00 UG/ML IN NONANE	
Ecology - soil	Not available.	
N-NONANE UNLABELED (111-84-2)		
Ecology - soil	Not available.	
CHLORPYRIFOS-METHYL UNLABELED (5598-13-0 (Unisheled))	
Ecology - soil	Not available.	
12.5. Results of PBT and vPvB assess	nont	
No additional information available	nent	
12.6. Other adverse effects	. An any irranmental hazard cannot be avaluated in the quant of upprefersional handling or	
Other adverse effects	: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	
SECTION 13: Disposal considerati	ons	
13.1. Waste treatment methods		
Regional legislation (waste)	: Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations.	
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.	
Additional information	: Handle empty containers with care because residual vapors are flammable.	
Ecology - waste materials	: Hazardous waste due to toxicity.	
SECTION 14: Transport informatio	n	
In accordance with ADR / RID / ADNR / IMDG	i / ICAO / IATA	
14.1. UN number		
UN-No.(DOT)	: 1920	
DOT NA no.	UN1920	

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14.2. UN proper shipping name	
DOT Proper Shipping Name	: Nonanes
Department of Transportation (DOT) Hazard Classes	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT)	: 3 - Flammable liquid
Packing group (DOT)	: III - Minor Danger
DOT Special Provisions (49 CFR 172.102)	 B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HD2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T2 - 1.5 178.274(d)(2) Normal
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
14.3. Additional information	. No supplementary information sucilable
Other information	: No supplementary information available.
Overland transport	
Packing group (ADR)	: III
Class (ADR)	: 3 - Flammable liquid
Hazard identification number (Kemler No.)	: 30
Classification code (ADR)	: F1
Danger labels (ADR)	: 3 - Flammable liquids
Orange plates	30 1920
Tunnel restriction code	
Limited quantities (ADR)	5L
EAC	: 3Y
Excepted quantities (ADR)	: E1
Transport by sea	
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a
Der vesser otowage Location	passenger vessel.
MFAG-No	: 128

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Air transport

DOT Quantity Limitations Passenger aircraft/rail : 60 L (49 CFR 173.27) DOT Quantity Limitations Cargo aircraft only (49 : 220 L CFR 175.75) **Civil Aeronautics Law**

: Flammable liquids

14.4. **Environmental hazards**

Dangerous for the environment



Other information

: No supplementary information available.

14.5. Special precautions for user

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code 14.6.

Not applicable

SECTION 15: Regulatory information		
15.1. US Federal regulations		
CHLORPYRIFOS-METHYL UNLABELED 100 UG/ML IN NONANE		
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard	
N-NONANE UNLABELED (111-84-2)		
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard	

15.2. International regulations

CANADA

CHLORPYRIFOS-METHYL UNLABELED 100 UG/ML IN NONANE	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

15.2.1. National regulations

No additional information available

15.3. US State regulations

CHLORPYRIFOS-METHYL UNLABELED 100 UG/ML IN NONANE()	
State or local regulations	U.S Massachusetts - Right To Know List
	U.S Pennsylvania - RTK (Right to Know) List
	U.S New Jersey - Right to Know Hazardous Substance List
	This product does not contain any chemicals known to State of California to cause cancer,
	birth defects, or any other reproductive harm.

N-NONANE UNLABELED (111-84-2)

U.S. - Massachusetts - Right To Know List

U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - New Jersey - Right to Know Hazardous Substance List

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

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Other information

This product is not radioactive. The data given for this product are those of the corresponding : unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Asp. Tox. 1	Aspiration hazard Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 3	Flammable liquids Category 3
Resp. Sens. 1	Respiratory sensitisation Category 1
Skin Irrit. 2	skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapor
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H331	Toxic if inhaled
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H336	May cause drowsiness or dizziness
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
R10	Flammable
R20	Harmful by inhalation
R22	Harmful if swallowed
R23	Toxic by inhalation
R42	May cause sensitization by inhalation
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R65	Harmful: may cause lung damage if swallowed
R67	Vapors may cause drowsiness and dizziness
Ν	Dangerous for the environment
Т	Toxic
Xn	Harmful
L	

NFPA health hazard	: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard	: 3 - Liquids and solids that can be ignited under almost all ambient conditions.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 3 Serious Hazard
Physical	: 0 Minimal Hazard

CIL Mixture SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product