

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 SDS Reference Number: 04588 Issue date: 4/9/2014 Revision date: 9/3/2024 Supersedes version of: 4/9/2015 Version: 1.0

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

1.1. Product identifier	
Product form Trade name EC Index-No. EC-No. CAS-No. Product code Type of product Formula Chemical structure	 Substance MERCUROUS CHLORIDE EXTRA PURE 080-003-00-1 233-307-5 10112-91-1 04588 Inorganic compound Hg2Cl2 CI-Hg-Hg-CI
Synonyms	: Dimercury dichloride, Mercury(I) chloride
1.2. Relevant identified uses of the substa	nce or mixture and uses advised against
Relevant identified uses Use of the substance/mixture	: Laboratory chemicals, Manufacture of substances
1.3. Details of the supplier of the safety da	ta sheet
LOBA CHEMIE PVT.LTD. 107 Wode House Road, Jehangir Villa, Colaba 400005 Mumbai INDIA T +91 22 6663 6663, F +91 22 6663 6699 info@lobachemie.com, www.lobachemie.com	
1.4. Emergency telephone number	
Emergency number	: + 91 22 6663 6663 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008	[CLP]
Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Specific target organ toxicity – Single exposure, Category 3,	H335
Respiratory tract irritation	
Hazardous to the aquatic environment – Acute Hazard,	H400
Category 1	
Hazardous to the aquatic environment – Chronic Hazard,	H410
Category 1	
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

Harmful if swallowed. May cause respiratory irritation. Causes skin irritation. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms (CLP) GHS07 GHS09 Signal word (CLP) : Warning Hazard statements (CLP) : H302 - Harmful if swallowed. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation. H410 - Very toxic to aquatic life with long lasting effects. Precautionary statements (CLP) : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P273 - Avoid release to the environment. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of water. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients		
3.1. Substances		
Substance type :	Mono-constituent	
Name	Product identifier	%
MERCUROUS CHLORIDE	CAS-No.: 10112-91-1 EC-No.: 233-307-5 EC Index-No.: 080-003-00-1	100

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Wash with plenty of water/ Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	 Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. Call a poison center or a doctor if you feel unwell.
First-aid measures for first aider	: First aid workers will be equipped with suitable personal protective equipment.
4.2. Most important symptoms and effects, both acute and delayed	
Symptoms/effects after inhalation	: May cause respiratory irritation.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Symptoms/effects after skin contact	: Causes skin irritation. Irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation. Eye irritation.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

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

Treat symptomatically.

SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media	: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). Water spray. Dry powder. Foam.	
Unsuitable extinguishing media	: Do not use a heavy water stream.	
5.2. Special hazards arising from the substance or mixture		
Fire hazard Explosion hazard Hazardous decomposition products in case of fire	 No fire hazard. No direct explosion hazard. Toxic fumes may be released. 	
5.3. Advice for firefighters		
Firefighting instructions Protection during firefighting	 Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. 	

SECTION 6: Accidental release measures	
6.1. Personal precautions, protective	equipment and emergency procedures
General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
For non-emergency personnel	
Protective equipment Emergency procedures	 Wear recommended personal protective equipment. Ventilate spillage area. Evacuate unnecessary personnel. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.
For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. Use personal protective equipment as required. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel.
6.2. Environmental precautions	

Avoid release to the environment. Very toxic to aquatic life with long lasting effects.

6.3. Methods and material for containment and cleaning up	
For containment Methods for cleaning up Other information	 Collect spillage. Mechanically recover the product. Clear up rapidly by scoop or vacuum. Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 7: Handling and storage		
7.1. Precautions for safe handling		
Additional hazards when processed Precautions for safe handling Hygiene measures	 Not expected to present a significant hazard under anticipated conditions of normal use. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Wear personal protective equipment. Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse. Always wash hands after handling the product. 	
7.2. Conditions for safe storage, including any incompatibilities		
Technical measures Storage conditions Packaging materials	 Keep in a cool, well-ventilated place away from heat. Keep container tightly closed. Store locked up. Store in a well-ventilated place. Store always product in container of same material as original container. 	

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment. **Personal protective equipment symbol(s):**



Eye and face protection

Eye protection: Chemical goggles or safety glasses

Skin protection

Skin and body protection: Wear a mask

Hand protection: Protective gloves

Respiratory protection

Respiratory protection: Wear appropriate mask

Environmental exposure controls

Environmental exposure controls: Avoid release to the environment.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and che	emical properties	
Physical state	: Solid	
Colour	: White.	
Appearance	: Crystalline powder.	
Molecular mass	: 472.09 g/mol	
Odour	: Odourless.	
Odour threshold	: Not available	
Melting point	: 383 °C (Sublimes)	
Freezing point	: Not applicable	
Boiling point	: Not available	
Flammability	: Not available	
Lower explosion limit	: Not applicable	
Upper explosion limit	: Not applicable	
Flash point	: Not applicable	
Auto-ignition temperature	: Not applicable	
Decomposition temperature	: Not available	
pH	: Not available	
pH solution	: Not available	
Viscosity, kinematic	: Not applicable	
Solubility	: Water: 0.2 mg/100 mL - Negligible	
	Ethanol: Insoluble	
	Ether: Insoluble	
Partition coefficient n-octanol/water (Log Kow)	: Not available	
Vapour pressure	: 1.7 mm Hg at 236 °C	
Vapour pressure at 50°C	: Not available	
Density	: 7.15 g/cm ³	
Relative density	: Not available	
Relative vapour density at 20°C	: Not applicable	
Particle size	: Not available	
9.2. Other information		
Other safety characteristics		
Refractive index	: 1.973 (nD)	

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Air contact. Moisture.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation) Skin corrosion/irritation	s defined in Regulation (EC) No 1272/2008 : Harmful if swallowed. : Not classified : Not classified
Acute toxicity (dermal) Acute toxicity (inhalation) Skin corrosion/irritation	: Not classified
Serious eye damage/irritation Respiratory or skin sensitisation Germ cell mutagenicity Carcinogenicity Reproductive toxicity STOT-single exposure STOT-repeated exposure Aspiration hazard	 Causes skin irritation. Causes serious eye irritation. Not classified Not classified Not classified Not classified Not classified Not classified May cause respiratory irritation. Not classified Not classified Not classified
MERCUROUS CHLORIDE EXTRA PU	RE (10112-91-1)
Viscosity, kinematic	Not applicable
11.2. Information on other hazards Other information Potential adverse human health effects and	: Harmful if swallowed.

12.1. I OXICITY	
Ecology - general Ecology - water	 Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

MERCUROUS CHLORIDE EXTRA PURE (10112-91-1)		
Persistence and degradability Rapidly degradable		
12.3. Bioaccumulative potential		
No additional information available		
12.4. Mobility in soil		
No additional information available		
12.5. Results of PBT and vPvB assessment		
No additional information available		
12.6. Endocrine disrupting properties		
No additional information available		
12.7. Other adverse effects		

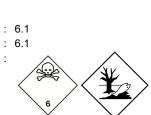
No additional information available

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

according to the REACH Regulation (EC) 1907/2006 ar	
SECTION 13: Disposal consideration	ns
13.1. Waste treatment methods	
Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance
	with local, regional, national and/or international regulation. Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.
SECTION 14: Transport information	
In accordance with ADR / IMDG / IATA / ADN / F	RID
14.1. UN number or ID number	
UN-No. (ADR)	: UN 2025
UN-No. (IMDG)	: UN 2025
UN-No. (IATA)	: UN 2025
UN-No. (ADN)	: UN 2025
UN-No. (RID)	: UN 2025
14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: MERCURY COMPOUND, SOLID, N.O.S.
Proper Shipping Name (IMDG)	: MERCURY COMPOUND, SOLID, N.O.S.
Proper Shipping Name (IATA)	: Mercury compound, solid, n.o.s.
Proper Shipping Name (ADN)	: MERCURY COMPOUND, SOLID, N.O.S.
Proper Shipping Name (RID)	: MERCURY COMPOUND, SOLID, N.O.S.
Transport document description (ADR)	: UN 2025 MERCURY COMPOUND, SOLID, N.O.S. (MERCUROUS CHLORIDE), 6.1, III, (E)
Transport document description (IMDG)	: UN 2025 MERCURY COMPOUND, SOLID, N.O.S. (MERCUROUS CHLORIDE), 6.1, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 2025 Mercury compound, solid, n.o.s. (MERCUROUS CHLORIDE), 6.1, III,
	ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 2025 MERCURY COMPOUND, SOLID, N.O.S., 6.1, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 2025 MERCURY COMPOUND, SOLID, N.O.S., 6.1, III, ENVIRONMENTALLY
	HAZARDOUS
14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR)	: 6.1
Danger labels (ADR)	: 6.1
IMDG	
Transport bazard class(os) (IMDG)	. 61

Transport hazard class(es) (IMDG) Danger labels (IMDG)



Transport hazard class(es) (IATA)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amend	ed by Regulation (EU) 2020/878
Danger labels (IATA)	
ADN Transport hazard class(es) (ADN) Danger labels (ADN)	: 6.1 : 6.1 :
RID Transport hazard class(es) (RID) Danger labels (RID)	: 6.1 : 6.1
14.4. Packing group	
Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN) Packing group (RID)	: III : III : III : III : III
14.5. Environmental hazards	
Dangerous for the environment Marine pollutant EmS-No. (Fire) EmS-No. (Spillage) Other information	 Yes Yes F-A S-A No supplementary information available
14.6. Special precautions for user	
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Special packing provisions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR) Tank special provisions (ADR) Vehicle for tank carriage Transport category (ADR) Special provisions for carriage - Bulk (ADR) Special provisions for carriage - Loading, unloading and handling (ADR) Special provisions for carriage - Operation (ADR)	 T5 43, 66, 274, 529 5kg E1 P002, IBC08, LP02, R001 B3 MP10 T1 TP33 SGAH TU15, TE19 AT 2 VC1, VC2, AP7 CV13, CV28 \$9
Hazard identification number (Kemler No.)	: 60

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Orange plates

Orange plates	60 2025
Tunnel restriction code (ADR)	: E
EAC code	: 2X
Transport by sea	
Special provisions (IMDG)	: 43, 66, 223, 274
Limited quantities (IMDG)	: 5 kg
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P002, LP02
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B3
Tank instructions (IMDG)	: T1
Tank special provisions (IMDG)	: TP33
Stowage category (IMDG)	: A
Segregation (IMDG)	: SGG7, SGG11
Properties and observations (IMDG)	: Toxic if swallowed, by skin contact or by dust inhalation.
MFAG-No	: 151
Air transport	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y645
PCA limited quantity max net quantity (IATA)	: 10kg
PCA packing instructions (IATA)	: 670
PCA max net quantity (IATA)	: 100kg
CAO packing instructions (IATA)	: 677
CAO max net quantity (IATA)	: 200kg
Special provisions (IATA)	: A3, A5, A6, A18 : 6L
ERG code (IATA)	. 62
Inland waterway transport	
Classification code (ADN)	: T5
Special provisions (ADN)	: 43, 66, 274, 529, 802
Limited quantities (ADN)	: 5 kg
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0
Rail transport	
Classification code (RID)	: T5
Special provisions (RID)	: 43, 66, 274, 529
Limited quantities (RID)	: 5kg
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P002, IBC08, LP02, R001
Special packing provisions (RID)	: B3 • MD10
Mixed packing provisions (RID) Portable tank and bulk container instructions (RID)	: MP10 : T1
Portable tank and bulk container instructions (RiD) Portable tank and bulk container special provisions	: TP33
(RID)	
Tank codes for RID tanks (RID)	: SGAH
Special provisions for RID tanks (RID)	: TU15
Transport category (RID)	: 2
Special provisions for carriage – Bulk (RID)	: VC1, VC2, AP7
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28, CW31
Colis express (express parcels) (RID)	: CE11
Hazard identification number (RID)	: 60
Hazaro Identification number (RID)	: UU

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Listed on the PIC list (Regulation EU 649/2012): Mercury compounds, including inorganic mercury compounds, alkyl mercury compounds and alkyloxyalkyl and aryl mercury compounds

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

France

Occupational diseases	
Code	Description
RG 2	Occupational diseases caused by mercury and its compounds

Germany

Water hazard class (WGK) Hazardous Incident Ordinance (12. BImSchV)	 WGK 3, Highly hazardous to water (Classification according to AwSV). Is not subject to the Hazardous Incident Ordinance (12. BImSchV)
Netherlands	
SZW-lijst van kankerverwekkende stoffen	: The substance is not listed
SZW-lijst van mutagene stoffen	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	g : The substance is not listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	g : The substance is not listed
Denmark	
Danish National Regulations	: Young people below the age of 18 years are not allowed to use the product
15.2. Chemical safety assessment	

No chemical safety assessment has been carried out

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 16: Other i	SECTION 16: Other information	
Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
ΙΑΤΑ	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
РВТ	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disruptor	

Full text of H- and EUF	I-statements:
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

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.