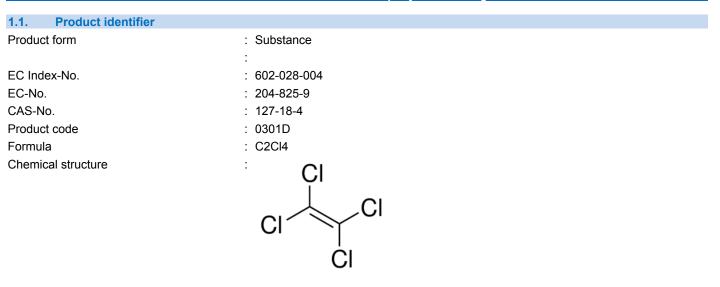


## CAS-No.: 127-18-4 MSDS

### **MATERIAL SAFETY DATA SHEET (MSDS)**

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



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

#### 1.2.1. Relevant identified uses

Use of the substance/mixture

: Laboratory chemicals, Manufacture of substances

#### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data 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]

Skin corrosion/irritation, H315 Category 2 Carcinogenicity, Category H351 2 Hazardous to the aquatic H411 environment — Chronic Hazard, Category 2

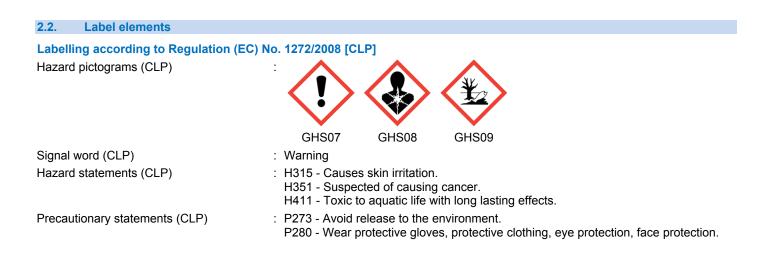
Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full text of hazard classes and H-statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD] Carc.Cat.3; R40 N; R51/53 Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects No additional information available



### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name	Product identifier	%
TETRACHLOROETHYLENE FOR UV SPECTROSCOPY	(CAS-No.) 127-18-4 (EC-No.) 204-825-9 (EC Index-No.) 602-028-004	100

Full text of R- and H-statements: see section 16

### 3.2. Mixtures

Not applicable

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### SECTION 4: First aid measures

4.1. Description of first aid measure	S
First-aid measures general	: Suspected of causing cancer.
First-aid measures after inhalation	: Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.
First-aid measures after skin contact	: Get immediate 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. Get immediate medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Get medical advice/attention.
4.2. Most important symptoms and	effects, both acute and delayed
Symptoms/effects after skin contact	: Causes skin irritation.
Chronic symptoms	: Suspected carcinogen.
4.3. Indication of any immediate me	dical attention and special treatment needed
Treat symptomatically.	
SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Carbon dioxide. Dry powder. Foam. Water spray.
Unsuitable extinguishing media	: Do not use extinguishing media containing water.
5.2. Special hazards arising from the	e substance or mixture
No additional information available	
5.3. Advice for firefighters	
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory
r rotection during menghang	protection.
SECTION 6: Accidental release measure	
	95 
6.1. Personal precautions, protectiv	
6.1.Personal precautions, protectiv6.1.1.For non-emergency personnel	e equipment and emergency procedures
6.1. Personal precautions, protectiv	95 
6.1.Personal precautions, protectiv6.1.1.For non-emergency personnel	e equipment and emergency procedures
6.1.Personal precautions, protectiv6.1.1.For non-emergency personnelEmergency procedures	e equipment and emergency procedures
<ul> <li>6.1. Personal precautions, protectiv</li> <li>6.1.1. For non-emergency personnel</li> <li>Emergency procedures</li> <li>6.1.2. For emergency responders</li> <li>Protective equipment</li> </ul>	e equipment and emergency procedures : Evacuate unnecessary personnel.
<ul> <li>6.1. Personal precautions, protectiv</li> <li>6.1.1. For non-emergency personnel</li> <li>Emergency procedures</li> <li>6.1.2. For emergency responders</li> </ul>	e equipment and emergency procedures : Evacuate unnecessary personnel.
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<ul> <li>6.1. Personal precautions, protectiv</li> <li>6.1.1. For non-emergency personnel Emergency procedures</li> <li>6.1.2. For emergency responders Protective equipment</li> <li>6.2. Environmental precautions Avoid release to the environment.</li> <li>6.3. Methods and material for contain</li> </ul>	e equipment and emergency procedures  : Evacuate unnecessary personnel.  : Use personal protective equipment as required.  inment and cleaning up
<ul> <li>6.1. Personal precautions, protectiv</li> <li>6.1.1. For non-emergency personnel</li> <li>Emergency procedures</li> <li>6.1.2. For emergency responders</li> <li>Protective equipment</li> <li>6.2. Environmental precautions</li> <li>Avoid release to the environment.</li> </ul>	e equipment and emergency procedures  : Evacuate unnecessary personnel.  : Use personal protective equipment as required.
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<ul> <li>6.1. Personal precautions, protectiv</li> <li>6.1.1. For non-emergency personnel Emergency procedures</li> <li>6.1.2. For emergency responders Protective equipment</li> <li>6.2. Environmental precautions Avoid release to the environment.</li> <li>6.3. Methods and material for contal Methods for cleaning up</li> <li>6.4. Reference to other sections</li> </ul>	e equipment and emergency procedures  : Evacuate unnecessary personnel.  : Use personal protective equipment as required.  inment and cleaning up
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<ul> <li>6.1. Personal precautions, protectiv</li> <li>6.1.1. For non-emergency personnel Emergency procedures</li> <li>6.1.2. For emergency responders Protective equipment</li> <li>6.2. Environmental precautions Avoid release to the environment.</li> <li>6.3. Methods and material for contal Methods for cleaning up</li> <li>6.4. Reference to other sections No additional information available</li> <li>SECTION 7: Handling and storage</li> <li>7.1. Precautions for safe handling</li> </ul>	e equipment and emergency procedures : Evacuate unnecessary personnel. : Use personal protective equipment as required. imment and cleaning up : On land, sweep or shovel into suitable containers. Collect spillage. : Avoid contact with skin and eyes. Do not breathe vapours. Provide good ventilation
<ul> <li>6.1. Personal precautions, protectiv</li> <li>6.1.1. For non-emergency personnel Emergency procedures</li> <li>6.1.2. For emergency responders Protective equipment</li> <li>6.2. Environmental precautions Avoid release to the environment.</li> <li>6.3. Methods and material for contal Methods for cleaning up</li> <li>6.4. Reference to other sections No additional information available</li> <li>SECTION 7: Handling and storage</li> <li>7.1. Precautions for safe handling Precautions for safe handling</li> </ul>	<ul> <li>e equipment and emergency procedures</li> <li>Evacuate unnecessary personnel.</li> <li>Use personal protective equipment as required.</li> <li>imment and cleaning up</li> <li>On land, sweep or shovel into suitable containers. Collect spillage.</li> <li>Avoid contact with skin and eyes. Do not breathe vapours. Provide good ventilation in process area to prevent formation of vapour.</li> <li>Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.</li> </ul>

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7.3.	Specific end use(s)	
No ad	additional information available	
OFOT		
SECT	CTION 8: Exposure controls/personal protection	
SECT	CTION 8: Exposure controls/personal protection	
SECT 8.1.	CTION 8: Exposure controls/personal protection Control parameters	

8.2. Exposure controls				
Hand protection	: Protective gloves			
Eye protection	: Chemical goggles or safety glasses			
Skin and body protection	: Wear suitable protective clothing			
Respiratory protection	: [In case of inadequate ventilation] wear respiratory protection.			
SECTION 9: Physical and chemical properties				
9.1. Information on basic physical a				
Physical state	: Liquid			
Colour	: Clear Colorless.			
Odour	: ethereal odor.			
Odour threshold	: No data available			
pH	: No data available			
Relative evaporation rate (butylacetate=1)	: 0.33			
Melting point	: -22 °C			
Freezing point	: No data available			
Boiling point	: 121 °C			
Flash point	: No data available			
Auto-ignition temperature	: No data available			
Decomposition temperature	: No data available			
Flammability (solid, gas)	: No data available			
Vapour pressure	: 17.3 hPa at 20°C			
Relative vapour density at 20 °C	: 5.7			
Relative density	: No data available			
Density	: 1.623 g/cm <sup>3</sup>			
Solubility	: Water: 0.015 g/100ml			
Log Pow	: 3.4			

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Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2.	Other information	
No ad	ditional information available	
SECT	ON 10: Stability and reactivity	
10.1.	Reactivity	
	ditional information available	
10.2.	Chemical stability	
Stable	under normal conditions.	
10.3.	Possibility of hazardous rea	actions
No ad	ditional information available	
10.4.	Conditions to avoid	
Direct	sunlight. Heat.	
10.5.	Incompatible materials	
No ad	ditional information available	
10.6.	Hazardous decomposition	products
No ad	ditional information available	
SECT	ON 11: Toxicological information	lion
11.1.	Information on toxicologica	I effects
Acute	toxicity	: Not classified
Skin c	orrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation		: Not classified
Respiratory or skin sensitisation		: Not classified
Germ cell mutagenicity		: Not classified
Carcin	ogenicity	: Suspected of causing cancer.
Repro	ductive toxicity	: Not classified
STOT	single exposure	: Not classified

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ccording to Regulation (EC) No. 1907/2006 (REAC	H) with its amendment Regulation (EU) 2015/830
SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - water	: Toxic to aquatic life with long lasting effects.
12.2. Persistence and degradabili	-
TETRACHLOROETHYLENE FOR U	
Persistence and degradability	May cause long-term adverse effects in the environment.
12.3. Bioaccumulative potential	
TETRACHLOROETHYLENE FOR UN	/ SPECTROSCOPY (127-18-4)
Log Pow	3.4
I2.4. Mobility in soil	
No additional information available	
I2.6. Other adverse effects	
No additional information available	
SECTION 13: Disposal consideratior	IS
13.1. Waste treatment methods	
Product/Packaging disposal ecommendations	<ul> <li>Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.</li> </ul>
SECTION 14: Transport information	
n accordance with ADR / RID / IMDG /	IATA / ADN
4.1. UN number	. 1007
JN-No. (ADR) JN-No. (IMDG)	: 1897 : 1897
JN-No. (IATA)	: 1897
JN-No. (ADN)	: 1897
JN-No. (RID)	: 1897
14.2. UN proper shipping name	
14.2. UN proper shipping name Proper Shipping Name (ADR)	: TETRACHLOROETHYLENE
Proper Shipping Name (ADR)	: TETRACHLOROETHYLENE : TETRACHLOROETHYLENE
Proper Shipping Name (ADR) Proper Shipping Name (IMDG)	
IA.2.         UN proper shipping name           Proper Shipping Name (ADR)           Proper Shipping Name (IMDG)           Proper Shipping Name (IATA)           Proper Shipping Name (ADN)	: TETRACHLOROETHYLENE
Proper Shipping Name (ADR) Proper Shipping Name (IMDG) Proper Shipping Name (IATA)	: TETRACHLOROETHYLENE : Tetrachloroethylene

Transport document description (ADR) : UN 1897 TETRACHLOROETHYLENE, 6.1, III, (E), ENVIRONMENTALLY HAZARDOUS

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Transport document description (IMDG)	: UN 1897 TETRACHLOROETHYLENE, 6.1, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 1897 Tetrachloroethylene, 6.1, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 1897 TETRACHLOROETHYLENE, 6.1, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 1897 TETRACHLOROETHYLENE, 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 hazard class(es) (IMDG) Danger labels (IMDG) : 6.1 : 6.1



### ΙΑΤΑ

Transport hazard class(es) (IATA) Hazard labels (IATA) : 6.1 : 6.1



### ADN

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

### RID

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





: 6.1

: 6.1



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Other information

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14.4. Packing group	
Packing group (ADR)	: 111
Packing group (IMDG)	: 111
Packing group (IATA)	: 111
Packing group (ADN)	: 111
Packing group (RID)	: 111
14.5. Environmental hazards	
Dangerous for the environment	: Yes
Marine pollutant	: Yes

: No supplementary information available

14.6.	Special precautions for user	

- Overland transport	<b>T</b> 4
Classification code (ADR)	: T1
Limited quantities (ADR)	: 51
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1
Tank code (ADR)	: L4BH
Tank special provisions (ADR)	: TU15, TE19
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13, CV28
Special provisions for carriage - Operation (ADR)	: S9
Hazard identification number (Kemler No.)	: 60
Orange plates	60 1897
Tunnel restriction code (ADR)	: E
EAC code	: 2Z
- Transport by sea	
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-A
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	<ul> <li>Colourless liquid with an ethereal odour. When involved in a fire, evolves extremely toxic fumes (phosgene). Toxic if swallowed, by skin contact or by inhalation.</li> </ul>
MFAG-No	: 160

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#### - Air transport

- All transport		
PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y642
PCA limited quantity max net quantity (IATA)	:	2L
PCA packing instructions (IATA)	:	655
PCA max net quantity (IATA)	:	60L
CAO packing instructions (IATA)	:	663
CAO max net quantity (IATA)	:	220L
ERG code (IATA)	:	6L
- Inland waterway transport		
Classification code (ADN)	:	T1
Special provisions (ADN)	:	802
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E1
Carriage permitted (ADN)	:	Т
Equipment required (ADN)	:	PP, EP, TOX, A
Ventilation (ADN)	:	VE02
Number of blue cones/lights (ADN)	:	0
- Rail transport		
Classification code (RID)	:	T1
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions (RID)	:	TP1
Tank codes for RID tanks (RID)	:	L4BH
Special provisions for RID tanks (RID)	:	TU15
Transport category (RID)	:	2
Special provisions for carriage – Packages (RID)	:	W12
Special provisions for carriage - Loading, unloading and handling (RID)	:	CW13, CW28, CW31
Colis express (express parcels) (RID)	:	CE8
Hazard identification number (RID)	:	60

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

Not applicable

**SECTION 15: Regulatory information** 

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

TETRACHLOROETHYLENE FOR UV SPECTROSCOPY is not on the REACH Candidate List TETRACHLOROETHYLENE FOR UV SPECTROSCOPY is not on the REACH Annex XIV List

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### 15.1.2. National regulations

### Germany

12th Ordinance Implementing the Federal : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance) Immission Control Act - 12.BImSchV Netherlands SZW-lijst van kankerverwekkende stoffen : The substance is not listed SZW-lijst van mutagene stoffen : The substance is not listed NIET-limitatieve liist van voor de : The substance is not listed voortplanting giftige stoffen - Borstvoeding NIET-limitatieve lijst van voor de : The substance is not listed voortplanting giftige stoffen -Vruchtbaarheid NIET-limitatieve lijst van voor de : TETRACHLOROETHYLENE FOR UV SPECTROSCOPY is listed voortplanting giftige stoffen - Ontwikkeling Denmark **Recommendations Danish Regulation** : Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product The requirements from the Danish Working Environment Authorities regarding work

with carcinogens must be followed during use and disposal

### 15.2. Chemical safety assessment

No additional information available

#### **SECTION 16: Other information**

### Full text of R-, H- and EUH-statements:

Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Carc. 2	Carcinogenicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H315	Causes skin irritation.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.
R40	Limited evidence of a carcinogenic effect
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Ν	Dangerous for the environment

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

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830