



## Safety Data Sheet

Date of Issue: 01.09.2020

Date of Expiry: 01.09.2025

### 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Distributor Name: : **ECP Limited**  
Address: : PO Box 34125, Birkenhead, Auckland 0746  
Telephone: : +64 9 480 4386  
Facsimile: : +64 9 480 4385  
Emergency phone number: : 0800 243 622 (24 hours)

Supplier Name : **Avantor Performance Materials, LLC**  
Address : 100 Matsonford Rd, Suite 200, Radnor, PA 19087

Product	Chloroform			Code	4440 , 4444
CAS#	HSNO#	UN #	DG Class/es	Packing group #	
67-66-3	HSR002937	1888	6.1	III	

**Recommended use** : For Laboratory, Research or Manufacturing Use.

### 2: Hazards identification

#### 2.1 GHS Classification

Acute toxicity, Oral (Category D), H302  
Skin irritation (Category A), H315  
Eye irritation (Category A), H319  
Carcinogenicity (Category B), H351  
Specific Target Organ Toxicity (Category B), H373  
Aquatic toxicity (Acute or Chronic) (Category D), H402

#### 2.2 GHS Label elements, including precautionary statements

##### Hazard Pictogram



Signal Word : **Warning**

##### Hazard statement(s)

H302 : Harmful if swallowed.  
H315 : Causes skin irritation.  
H319 : Causes serious eye irritation.  
H351 : Suspected of causing cancer.  
H373 : May cause damage to organs through prolonged or repeated exposure.  
H402 : Harmful to aquatic life.

##### Precautionary statement(s)

###### Prevention

P201 : Obtain special instructions before use.  
P202 : Do not handle until all safety precautions have been read and understood.  
P260 : Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 : Wash skin thoroughly after handling.

P270 : Do not eat, drink or smoke when using this product.  
 P273 : Avoid release to the environment.  
 P280 : Wear protective gloves.

**Response**

P301 + P312 : IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
 P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.  
 P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes.  
 Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308 + P313 : IF exposed or concerned: Get medical advice/ attention.  
 P321 : Specific treatment (see supplemental first aid instructions on this label).  
 P330 : Rinse mouth.  
 P332 + P313 : If skin irritation occurs: Get medical advice/ attention.  
 P337 + P313 : If eye irritation persists: Get medical advice/ attention.  
 P362 : Take off contaminated clothing and wash before reuse.

**Storage**

P405 : Store locked up.

**Disposal**

P501 : Dispose of contents/ container to an approved waste disposal plant.

**2.3 Other hazards** - none

**3: Composition/information on ingredients**

Substance / Mixture : Substance

**3.1 Substances**

Synonyms : Trichloromethane , Methylidyne trichloride  
 Formula : CHCl3  
 Molecular weight : 119.38 g/mol  
 CAS-No. : 67-66-3  
 EC-No. : 200-663-8  
 Index-No. : 602-006-00-4

**Hazardous components**

Component	Classification	Concentration
Chloroform	6.1 D; 6.3 A; 6.4 A; 6.7 B; 6.9 B; 9.1 D; H302, H315, H319, H351, H373, H402 Concentration limits: 20 %: STOT SE 3, H336;	<= 100 %

**4: First aid measures**

**4.1 Description of first aid measures**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.  
 Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

**5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 Special hazards arising from the substance or mixture**

Carbon oxides, Hydrogen chloride gas

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

No data available

**6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

**6.3 Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

**7: Handling and storage****7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**8: Exposure controls/personal protection****8.1 Control parameters****Occupational Exposure Limits Table**

Component	CAS No.	Value	Control parameters	Basis
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Chloroform	67-66-3	WES-TWA	2 ppm 9.9 mg/m <sup>3</sup>	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
REMARKS	Carcinogen - suspected human carcinogen , Skin absorption			

## 8.2 Exposure controls

### Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

### Personal protective equipment

#### Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

#### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### a) Appearance

Form : liquid, clear  
Colour : colourless

b) Odour : Ether like odour

c) Odour Threshold : No data available

d) pH : No data available

#### e) Melting point/freezing point

Melting point/range : -63.41°C

#### f) Initial boiling point and

boiling range : 61.5 °C

g) Flash point : - Regulation (EC) No. 440/2008, Annex, A.9 does not flash

h) Evaporation rate : No data available

i) Flammability (solid, gas) : No data available

j) Upper/lower flammability or

explosive limits : No data available

k) Vapour pressure : 26.3 kPa (25 °C)

l) Vapour density : 4.12 - (Air = 1.0)

Density : 1.48 g/ml (20 °C)

m) Relative density : 1.48 (20 °C)

n) Water solubility : 5 g/l (25 °C)

#### o) Partition coefficient:

n-octanol/water : 1.97

p) Auto-ignition temperature : No data available

- q) Decomposition temperature : Distillable in an undecomposed state at normal pressure.  
r) Viscosity : No data available  
s) Explosive properties : No data available  
t) Oxidizing properties : No data available

## 9.2 Other safety information

Solubility in other solvents : organic solvent at 20 °C  
- miscible

## 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Hazardous polymerization does not occur

### 10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur

### 10.4 Conditions to avoid

Heat, sparks, flames. Contact with incompatible materials.

### 10.5 Incompatible materials

Strong oxidizing agents. Strong bases. Caustics. Aluminium. Chemically active metals.

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

Other decomposition products - No data available

In the event of fire: see section 5

## 11: Toxicological information

### Information on likely routes of exposure

Inhalation : Harmful if inhaled. May cause central nervous system effects.  
Skin Contact : Causes skin irritation.  
Eye contact : Causes serious eye irritation.  
Ingestion : Harmful if swallowed. Irritating. May cause nausea, stomach pain and vomiting.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

##### Oral

Product : LD 50 (Rat): 444 mg/kg

##### Dermal

Product : No data available.

##### Inhalation

Product : LC 50 (Rat, 4 h) 47.702 mg/l

#### Repeated dose toxicity

Product : No data available.

#### Skin Corrosion/Irritation

Product : Causes irritation.

**Serious Eye Damage/Eye Irritation**

Product : Causes serious eye irritation.

**Respiratory or Skin Sensitization**

Product : Not a skin sensitizer.

**Carcinogenicity**

Product : Suspected of causing cancer.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Chloroform Overall evaluation: 2B. Possibly carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

Chloroform Reasonably Anticipated to be a Human Carcinogen.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity****In vitro**

Product : No mutagenic components identified

**In vivo**

Product : No mutagenic components identified

**Reproductive toxicity**

Product : Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity - Single Exposure**

Product : Central nervous system.

**Specific Target Organ Toxicity - Repeated Exposure**

Product : Liver. Kidneys.

Target Organs

**Specific Target Organ Toxicity - Single Exposure:** Central nervous system

**Specific Target Organ Toxicity - Repeated Exposure:** Liver, Kidney

**Aspiration Hazard**

Product : Not classified

**Other effects** : None known.

**12: Ecological information****12.1 Toxicity**

Toxicity to fish flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 18.2 mg/l - 96 h

Remarks: (ECHA)

**Toxicity to daphnia and other aquatic invertebrates**

static test EC50 - Daphnia magna (Water flea) - 79 mg/l - 48 h

Remarks: (ECHA)

**Toxicity to algae**

static test ErC50 - Chlamydomonas reinhardtii (green algae) - 13.3 mg/l - 72 h

Remarks: (ECHA)

### 12.2 Persistence and degradability

No data available

Theoretical oxygen demand

Remarks: No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

Harmful to aquatic life with long lasting effects.

No data available

## 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## 14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	1888	1888	1888
14.2	UN Proper Shipping name	CHLOROFORM	CHLOROFORM	Chloroform
14.3	Transport Hazard Class	6.1	6.1	6.1
14.4	Packaging group	III	III	III
14.5	Environmental Hazards	No	No	No
14.6	Special precautions for user	none		
14.7	Incompatible materials	various plastics, Rubber , Strong oxidizing agents		

## 15: Regulatory information

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

#### National regulatory information

HSNO Approval Code: HSR002937

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits

Group Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

## 16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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