



Safety Data Sheet

Date of Issue: 01.10.2020

Date of Expiry: 01.10.2025

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)

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

Product	Methanol ChromAR			Code	3041
CAS#	HSNO#	UN #	DG Class/es	Packing group #	
67-56-1	HSR001186	1230	3	III	

Recommended use : Laboratory Investigations

2: Hazards identification

2.1 GHS Classification

Flammable Liquids (Category B)
Acute toxicity, Oral (Category C)
Acute toxicity, Inhalation (Category C)
Acute toxicity, Dermal (Category C)
Skin irritation (Category A)
Eye irritation (Category A)
Specific Target Organ Toxicity (Category A)

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram



Signal Word : **Danger**

Hazard statement(s)

H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H370 Causes damage to organs.

Precautionary statement(s)

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.

- P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- 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.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
- P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician.
- P322 Specific measures (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.
- P361 Remove/ Take off immediately all contaminated clothing.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P403 + P235 Store in a well-ventilated place. Keep cool.
- 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

3.1 Substances

- Synonyms : Methyl alcohol
- Formula : CH4O
- Molecular wt. : 32.04 g/mol
- CAS-No. : 67-56-1
- EC-No. : 200-659-6
- Index-No. : 603-001-00-X

Chemical identity	Classification	Content in percent (%)*
Methanol	3.1 B; 6.1 C; 6.9 A; H225, H301, H331, H311, H370	99-100%

All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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

Flush eyes with water as a precaution.

If swallowed

After swallowing: fresh air. Make victim drink ethanol (e.g. 1 drinking glass of a 40% alcoholic beverage). Call a doctor immediately (mention methanol ingestion). Only in exceptional cases, if no medical care is available within one hour, induce vomiting (only in fully conscious persons) and make victim drink ethanol again (approx. 0.3 ml of a 40% alcoholic beverage/kg body weight/hour).

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

Foam Carbon dioxide (CO₂) Dry powder Water

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Combustible.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

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. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low 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.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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.

Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

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.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits Table

Component	CAS No.	Value	Control parameters	Basis
Methanol	67-56-1	WES-TWA	200 ppm 262 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
	Remarks	Exposure can also be estimated by biological monitoring Skin absorption		
		WES-STEL	250 ppm 328 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
		Exposure can also be estimated by biological monitoring Skin absorption		

Biological occupational exposure limits

Component	CAS No.	Value	Control parameters	Basis	Component
Methanol	67-56-1	Methyl Alcohol	15 mg/l	Urine	New Zealand. Biological Exposure Indices
	Remarks	End of shift			

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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.

9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Liquid
Form	: Liquid
Color	: Colorless
Odor	: Characteristic
Odor threshold	: No data available.
pH	: No data available.
Melting point/freezing point	: -97.8 °C
Initial boiling point and boiling range	: 64 °C (101.3 kPa)
Flash Point	: 11 - 12 °C (Closed Cup)
Evaporation rate	: No data available.
Flammability (solid, gas)	: No data available.

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%)	: 36 %(V)
Flammability limit - lower (%)	: 6 %(V)
Explosive limit - upper (%)	: No data available.
Explosive limit - lower (%)	: No data available.
Vapor pressure	: 16.9 kPa (25 °C)
Vapor density	: 1.11 (Air = 1)
Density	: 0.8 g/ml (25 °C)
Relative density	: 0.7866 (25 °C)
Solubility(ies)	
Solubility in water	: 1,000 g/l
Solubility (other)	: ether: Miscible
Acetone	: Soluble
Benzene	: Miscible
Chloroform	: Soluble
Ethanol.	: Miscible
Partition coefficient (n-octanol/water)	: -0.77
Auto-ignition temperature	: 240 °C
Decomposition temperature	: No data available.
Viscosity	: No data available.

9.2 Other information

Liquid conductivity	: 0.45 µS/cm
Molecular weight	: 32.04 g/mol (CH ₃ OH)

10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Risk of explosion with: Oxidizing agents, Halogens, sodium hypochlorite, sulphuric acid,

nitrogen oxides, chlorates, chromium(VI) oxide, chromosulfuric acid, halogen oxides, hydrides, salts of ox halogenic acids, perchlorates, perchloric acid, permanganic acid, hydrogen peroxide, zinc diethyl, non-metallic oxides, powdered magnesium, Nitric acid Exothermic reaction with: Acids, Chloroform, Acid anhydrides, Reducing agents, Bromine, Chlorine, tetrachloromethane, acid halides, magnesium Risk of ignition or formation of inflammable gases or vapours with: Fluorine, Oxides of phosphorus, Raneynickel Generates dangerous gases or fumes in contact with: Alkali metals, Alkaline earth metals

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Magnesium, zinc alloys, various plastics , Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LDLo Oral - Human - 143 mg/kg

Remarks: (RTECS)

LC50 Inhalation - Rat - male and female - 4 h - 131.25 mg/l

Remarks: (ECHA)

LD50 Dermal - Rabbit - 17,100 mg/kg

Remarks: (External MSDS)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

Remarks: (ECHA) Drying-out effect resulting in rough and chapped skin.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Remarks: (ECHA)

Possible damages: Irritations of mucous membranes

Respiratory or skin sensitisation

Sensitisation test: - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Based on available data the classification criteria are not met.

In vitro mammalian cell gene mutation test

Chinese hamster lung cells

Result: negative

Ames test

Salmonella typhimurium

Result: negative

OECD Test Guideline 474

Mouse - male and female - Bone marrow

Result: negative

Carcinogenicity

Did not show carcinogenic effects in animal experiments.

IARC: No component of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

Causes damage to organs. - Eyes

Acute oral toxicity - Nausea, Vomiting

Acute inhalation toxicity - Irritation symptoms in the respiratory tract.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No aspiration toxicity classification

Additional Information

RTECS: PC1400000

Systemic effects:

acidosis, drop in blood pressure, agitation, spasms, inebriation, Dizziness, Drowsiness, Headache, Impairment of vision, Blindness, narcosis, Coma

Symptoms may be delayed.

Damage to:

Liver, Kidney, Cardiac, Irreversible damage of the optical nerve.

Other dangerous properties cannot be excluded.

This substance should be handled with particular care.

12: Ecological information

12.1 Toxicity

Toxicity to fish

flow-through test LC50 - *Lepomis macrochirus* (Bluegill) - 15,400.0 mg/l - 96 h (US-EPA)

Toxicity to daphnia and other aquatic invertebrates

semi-static test EC50 - *Daphnia magna* (Water flea) - 18,260 mg/l - 96 h (OECD Test Guideline 202)

Toxicity to algae

static test ErC50 - *Pseudokirchneriella subcapitata* (green algae) - ca. 22,000.0 mg/l - 96 h (OECD Test Guideline 201)

Toxicity to bacteria

static test IC50 - activated sludge - > 1,000 mg/l - 3 h (OECD Test Guideline 209)

12.2 Persistence and degradability

Biodegradability Result: 99 % - Readily biodegradable. (OECD Test Guideline 301D)

Biochemical Oxygen Demand (BOD) 600 - 1,120 mg/g
Remarks: (IUCLID)

Chemical Oxygen Demand (COD) 1,420 mg/g
Remarks: (IUCLID)

Theoretical oxygen demand 1,500 mg/g
Remarks: (Lit.)

Ratio BOD/ThBOD 76 %
Remarks: Closed Bottle test(IUCLID)

12.3 Bioaccumulative potential

Bioaccumulation Cyprinus carpio (Carp) - 72 d
at 20 °C - 5 mg/l(Methanol)
Bioconcentration factor (BCF): 1.0

12.4 Mobility in soil

Will not adsorb on soil.

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

Additional ecological information

Avoid release to the environment.

Stability in water at 19 °C83 - 91 % - 72 h

Remarks: Hydrolyses on contact with water. Hydrolyses readily.

13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

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	1230	1230	1230
14.2	UN Proper Shipping name	METHANOL	METHANOL	Methanol
14.3	Transport Hazard Class	3 (6.1)	3 (6.1)	3 (6.1)
14.4	Packaging group	II	II	II
14.5	Environmental Hazards	No	No	No
14.6	Special precautions for user	None		
14.7	Incompatible materials	Magnesium, zinc alloys, various plastics ,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: HSR001186

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

Group Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

Notification status

AICS : On the inventory, or in compliance with the inventory
DSL : All components of this product are on the Canadian DSL
ENCS : On the inventory, or in compliance with the inventory
ISHL : On the inventory, or in compliance with the inventory
KECI : On the inventory, or in compliance with the inventory
NZIoC : On the inventory, or in compliance with the inventory
PICCS : On the inventory, or in compliance with the inventory

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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