Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Revision Date: 24-oct-2012 Version No.: 3

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation	Methanol AnalaR NORMAPUR® ACS, ISO, Reag.Ph.Eur. analytical reagent
Product No.	20847 (VWR International)
Substance name	Methanol
CAS No.	67-56-1
INDEX no.	603-001-00-X
REACH registration No.	01-2119433307-44
other means of identification	Hydroxy methane Wood alcohol Carbinol Methyl alcohol

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

Relevant identified uses	for laboratory use and chemical production.

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

VWR International Ltd.

Street	Hunter Boulevard, Magna Park
Postal code/city	Lutterworth, LE17 4XN
country	United Kingdom
Telephone	0800 22 33 44
Telefax	01455 55 85 86
E-mail (competent person)	vwrsds@eu.vwr.com

1.4 Emergency telephone

Telephone	+44 (0) 1270 502894

2. Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No. 1272/2008 [CLP]

hazard classes and hazard categories	Hazard Statements	classification procedure	remark
Flammable liquid, category 2	H225		
Acute toxicity, category 3, oral	H301		

Acute toxicity, category 3, dermal	H311		
Acute toxicity, category 3, inhalation	H331		
Specific target organ toxicity (single exposure), category 1	H370		

2.1.2 Classification according to Directive 67/548/EEC or 1999/45/EC

Hazard symbols:	R-phrases
F	R11
T	R23/24/25
T+	R39/23/24/25

2.2 Label elements

2.2.1 Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word Danger

Hazard Statements

H225	Highly flammable liquid and vapour.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H370	Causes damage to organs.

Precautionary statements

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P243	Take precautionary measures against static discharge.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P309+P310	IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

2.2.2 Labelling (67/548/EEC or 1999/45/EC)

Hazard symbols:

F, T

R-phrases

R11	Highly flammable.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

S-phrases

S7	Keep container tightly closed.
S16	Keep away from sources of ignition - No smoking.

S36/37	Wear suitable protective clothing and gloves.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other hazards

SVHC No

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3. Composition/ Information on ingredients

Molecular formula	H_3 COH
Molecular weight (g/mol)	32.04 g/mol
CAS No.	67-56-1
EC No	200-659-6
INDEX no.	603-001-00-X

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4. First-aid measures

4.1 General information

IF exposed: Immediately call a POISON CENTER or doctor/ physician. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

4.2 After inhalation

Immediately call a POISON CENTER or doctor/ physician. Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

4.3 In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

4.4 After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

4.5 After ingestion

Immediately call a POISON CENTER or doctor/ physician. Do not induce vomiting. Rinse mouth thoroughly with water. Give nothing to eat or drink.

4.6 Self-protection of the first aider

First aider: Pay attention to self-protection!

4.7 Information to physician:

Symptoms	No data available
Hazards	No data available
Treatment	No data available

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5. Firefighting measures

5.1 Suitable extinguishing media

Water spray ABC-powder Carbon dioxide (CO2) Nitrogen

5.2 Extinguishing media which must not be used for safety reasons:

no restriction

5.3 Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon dioxide (CO2) Carbon monoxide

5.4 Advice for firefighters

DO NOT fight fire when fire reaches explosives. In case of fire: Wear self-contained breathing apparatus.

5.5 Additional information

Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Use water spray jet to protect personnel and to cool endangered containers.

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6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid generation of dust. Do not breathe dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Danger of explosion.

6.3 Methods and material for containment and cleaning up

Spilled product must never be returned to the original container for recycling. Clean contaminated objects and areas thoroughly observing environmental regulations. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

6.4 Additional information

Clear spills immediately.

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7. Handling and storage

7.1 Precautions for safe handling

Avoid: Inhalation. Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Keep away from sources of ignition. - No smoking. Usual measures for fire prevention. Take precautionary measures against static discharge.

7.2 Conditions for safe storage, including any incompatibilities

storage temperature	15-25°C

Keep container tightly closed in a cool, well-ventilated place. Store in a place accessible by authorized persons only. Keep/Store away from combustible materials.

7.3 Specific end use(s)

No data available

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8. Exposure controls / Personal protection

8.1 Control parameters

Ingredient (Designation)	Limit value type (country of origin):	Limit value	Regulatory information
Methanol	TWA (EU)	200 ppm, 260 mg/m3	2006/15/EC

8.2 Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

8.3 Personal protective equipment

Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

8.3.1 Eye / face protection

Eye glasses with side protection DIN-/EN-Norms: DIN EN 166

8.3.2 Skin protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Recommended glove articles DIN-/EN-Norms: DIN EN 374 In the case of wanting to use the gloves again, clean them before taking off and air them well.

By short-term hand contact	
Suitable material:	NBR (Nitrile rubber)
Thickness of the glove material	0,38 mm

Breakthrough time (maximum wearing time)	-
Recommended glove articles	VWR 112-1381

By long-term hand contact	
Suitable material:	Butyl caoutchouc (butyl rubber)
Thickness of the glove material	0,30 mm
Breakthrough time (maximum wearing time)	>480 min
Recommended glove articles	VWR 112-3779

8.3.3 Protective clothing

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

8.3.4 Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

Suitable respiratory protection apparatus:	Full-/half-/quarter-face masks (DIN EN 136/140)
Recommendation	VWR 111-0206
Suitable material:	A2B2E2K2P3
Recommendation	VWR 111-0059

8.4 Additional information

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

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9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a) Appearance	
Physical state	liquid
Colour	colourless
(b) Odour	No data available
(c) Odour threshold	No data available

Safety relevant basic data

(d) pH	7 (20°C)
(e) Melting point/freezing point	-98°C
(f) Initial boiling point and boiling range	64.6°C (1013 hPa)
(g) Flash point	11°C (closed cup)
(h) Evaporation rate	No data available
(i) Flammability (solid, gas)	Highly flammable liquid and vapour.
(j) Upper/lower flammability or explosive limits	
Lower explosion limit (Vol-%)	5.5
Upper explosion limit (Vol-%)	36.5
(k) Vapour pressure	128 hPa (20°C)
(l) Vapour density	1.11 (20°C)
(m) Relative density	0.7918 g/cm³ (20°C)

(n) Solubility(ies)	
Water solubility (g/l)	soluble
at °C:	20
Soluble (g/l) in	No data available
(o) Partition coefficient: n-octanol/water	-0.77 (20°C)
(p) Auto-ignition temperature	455°C
(q) Decomposition temperature	No data available
(r) Viscosity	
Kinematic viscosity	No data available
Dynamic viscosity	0.614 mPa*s (20°C)
(s) Explosive properties	not applicable
(t) Oxidising properties	not applicable

9.2 Other information

Bulk density	No data available
refraction index	1.33066 (589 nm, 20°C)
dissociation constant	No data available
Surface tension	No data available
Henry constant	No data available

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10. Stability and reactivity

10.1 Reactivity

Vapours can form explosive mixtures with air.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Formation of potentially explosive mixtures with: Oxidising agent Nitrogen oxides (NOx) Material, oxygen-rich, oxidizing Nitric acid Chlorine Bromine Exothermic reaction with: Reducing agent Acid. Acid halides. Alkali (lye), concentrated Violent reaction with: Alkali metals Alkaline earth metal Formation of: Hydrogen

10.4 Conditions to avoid

UV-radiation/sunlight Heating This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment).

10.5 Incompatible materials

light metals Plastic articles

10.6 Hazardous decomposition products

No data available

10.7 Additional information

Slowly corrodes aluminium and zinc under hydrogen evolution.

11. Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity	
Effective dose	LDLo: 143 mg/kg
species:	human
Exposure time	
remark	
source	RTECS

Acute dermal toxicity	
Effective dose	LD50: 15800 mg/kg
species:	rabbit
Exposure time	
remark	
source	

Acute inhalation toxicity	
Effective dose	No data available
species:	No data available
Exposure time	
remark	
source	

Irritant and corrosive effects

Primary irritation to the skin	
Exposure time	
species:	
Result	

Irritation to eyes	
Exposure time	
species:	
Result	

Irritation to respiratory tract	
Exposure time	
species:	
Result	

Sensitisation

In case of skin contact	not sensitising.
After inhalation	not sensitising.

Specific target organ toxicity (single exposure)

Causes damage to organs.

Specific target organ toxicity (repeated exposure)

not relevant

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No indication of human carcinogenicity.

Germ cell mutagenicity/Genotoxicity

No indications of human germ cell mutagenicity exist.

Reproductive toxicity

No indications of human reproductive toxicity exist.

Aspiration hazard

not relevant

11.2 Other adverse effects

No data available

11.3 Additional information

No data available

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12. Ecological information

12.1 Ecotoxicity

Acute (short-term) fish toxicity

LC50:	No data available
EC50	
species:	
Exposure time	

Chronic (long-term) fish toxicity

LC50:	No data available
EC50	
species:	
Exposure time	

Acute (short-term) daphnia toxicity

LC50:	No data available
EC50	
species:	
Exposure time	

Chronic (long-term) daphnia toxicity

LC50:	No data available
EC50	
species:	
Exposure time	

Acute (short-term) algae toxicity

LC50:	No data available
EC50	
species:	
Exposure time	

Chronic (long-term) algae toxicity

LC50:	No data available
EC50	
species:	
Exposure time	

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

(o) Partition coefficient: n-octanol/water	-0.77 (20°C)

12.4 Mobility in soil

No data available

12.5 Results of PBT assessment

No data available

12.6 Other adverse effects

No data available

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13. Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product	07 01 04 (other organic solvents, washing liquids and mother liquors)

Appropriate disposal / Package

13.2 Additional information

No data available

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14. Transport information

14.1 Land transport (ADR/RID)

UN-No.	1230
Proper Shipping Name	METHANOL
Class(es)	3
Classification code:	FT1
Packing group	II
Hazard label(s)	3 + 6.1

14.2 Sea transport (IMDG)

UN-No.	1230
Proper Shipping Name	METHANOL
Class(es)	3
Classification code:	FT1
Packing group	II
Marine pollutant	
Segregation group	

14.3 Air transport (ICAO-TI / IATA-DGR)

UN-No.	1230
Proper Shipping Name	METHANOL
Class(es)	3
Classification code:	FT1
Packing group	II

14.4 Additional information

No data available

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15. Regulatory information

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

Water hazard class (WGK)	1

15.2 Chemical Safety Assessment

No data available

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16. Other information

16.1 Relevant R-, H- and EUH-phrases (Number and full text)

R11	Highly flammable.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

H225	Highly flammable liquid and vapour.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H370	Causes damage to organs.

16.2 Additional information

Indication of changes

general update

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.