



Material Safety Data Sheet

Creation Date 16-Jun-2009

Revision Date 22-Sep-2009

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Acetonitrile
Cat No.	A955-212, A955-500, A955-1
Synonyms	AN; Methyl cyanide
Recommended Use	Laboratory chemicals
Company	Emergency Telephone Number
Fisher Scientific UK	Chemtrec US: (800) 424-9300
Bishop Meadow Rd	Chemtrec EU: (202) 483-7616 Tel:
Loughborough, Leicestershire, Great Britain	01509 231166
LE115RG	
Tel: 01509 231166	

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Flammable liquid and vapor. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes. May cause skin and respiratory tract irritation. May cause central nervous system effects. Liver and kidney injuries may occur.

Appearance Colorless

Physical State Liquid

odor aromatic

Target Organs Central nervous system (CNS), Respiratory system, Kidney, Liver, Eyes, Skin

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes

Irritating to eyes.

Skin

Harmful in contact with skin. May cause irritation. May be metabolized to cyanide which in turn acts by inhibiting cytochrome oxidase impairing cellular respiration.

Inhalation

Harmful by inhalation. Inhalation may cause central nervous system effects. May cause irritation. May be metabolized to cyanide which in turn acts by inhibiting cytochrome oxidase impairing cellular respiration.

Ingestion

Harmful if swallowed. May cause central nervous system effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Metabolism may release cyanide, which may result in headache, dizziness, weakness, collapse, unconsciousness, and possible death.

Chronic Effects

Tumorigenic effects have been reported in experimental animals.. Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse liver effects. May cause adverse kidney effects. Exposure to small amounts of cyanide compounds over long periods of time is reported to cause loss of appetite, headache, weakness, nausea, dizziness, and irritation of the upper respiratory tract and eyes.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions

Central nervous system disorders. Kidney disorders. Liver disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Haz/Non-haz**

Component	CAS-No	Weight %
Acetonitrile	75-05-8	99

4. FIRST AID MEASURES**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Call a physician or Poison Control Center immediately.

Ingestion

Do not induce vomiting. Call a physician or Poison Control Center immediately.

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Flash Point**

2°C / 35.6°F

Method

No information available.

Autoignition Temperature

525°C / 977°F

Explosion Limits**Upper**

16 vol %

Lower

3 vol %

Suitable Extinguishing Media

CO₂, dry chemical, dry sand, alcohol-resistant foam. Cool closed containers exposed to fire with water spray.

Unsuitable Extinguishing Media

Water may be ineffective

Hazardous Combustion Products

No information available.

Sensitivity to mechanical impact

No information available.

Sensitivity to static discharge

No information available.

Specific Hazards Arising from the Chemical

Flammable. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA**Health 2****Flammability 3****Instability 0****Physical hazards N/A****6. ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Wear self-contained breathing apparatus and protective suit. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Take precautionary measures against static discharges.

Environmental Precautions

Should not be released into the environment.

Methods for Containment and Clean Up

Remove all sources of ignition. Soak up with inert absorbent material. Keep in suitable and closed containers for disposal. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE**Handling**

Use only under a chemical fume hood. Use explosion-proof equipment. Use only non-sparking tools. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist.

Storage

Keep tightly closed in a dry and cool place. Keep away from heat and sources of ignition. Protect from moisture. Flammables area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Engineering Measures**

Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetonitrile	TWA: 20 ppm Skin	(Vacated) TWA: 40 ppm (Vacated) TWA: 70 mg/m ³ (Vacated) STEL: 105 mg/m ³ (Vacated) STEL: 60 ppm TWA: 70 mg/m ³ TWA: 40 ppm	IDLH: 500 ppm TWA: 34 mg/m ³ TWA: 20 ppm

Component	Quebec	Mexico OEL (TWA)	Ontario TWA EV
Acetonitrile	TWA: 40 ppm TWA: 67 mg/m ³ STEL: 60 ppm STEL: 101 mg/m ³	TWA: 40 ppm TWA: 70 mg/m ³ STEL: 60 ppm STEL: 105 mg/m ³	TWA: 20 ppm Skin

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment**Eye/face Protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Colorless
odor	aromatic
Odor Threshold	No information available.
pH	No information available.
Vapor Pressure	97 mbar @ 20 °C
Vapor Density	1.42 (Air = 1.0)
Viscosity	0.36 cP at 20 °C
Boiling Point/Range	81 - 82°C / 177.8 - 179.6°F @ 760 mmHg
Melting Point/Range	-46°C / -50.8°F
Decomposition temperature	No information available.
Flash Point	2°C / 35.6°F
Evaporation Rate	(Butyl Acetate = 1.0)
Specific Gravity	0.781
Solubility	Soluble in water
log Pow	No data available
Molecular Weight	41.04
Molecular Formula	C ₂ H ₃ N

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Keep away from open flames, hot surfaces and sources of ignition. Exposure to moisture.
Incompatible Materials	Strong oxidizing agents, Strong acids, Reducing agents
Hazardous Decomposition Products	Hydrogen cyanide (hydrocyanic acid), Nitrogen oxides (NO _x), Carbon monoxide (CO), Carbon dioxide (CO ₂)
Hazardous Polymerization	Hazardous polymerization does not occur
Hazardous Reactions .	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetonitrile	2460 mg/kg (Rat)	2000 mg/kg (Rabbit)	7551 ppm (Rat) 8 h

Irritation Irritating to eyes

Toxicologically Synergistic Products No information available.

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

Sensitization No information available.

Mutagenic Effects Mutagenic effects have occurred in experimental animals.

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects Developmental effects have occurred in experimental animals.

Teratogenicity Teratogenic effects have occurred in experimental animals..

Other Adverse Effects Tumorigenic effects have been reported in experimental animals.. See actual entry in RTECS for complete information.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Acetonitrile	Not listed	Not listed	EC50 = 28000 mg/L 48 h EC50 = 73 mg/L 24 h EC50 = 7500 mg/L 15 h	EC50 18 h 5838 mg/L

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility .

Component	log Pow
Acetonitrile	-0.34

13. DISPOSAL CONSIDERATIONS

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Acetonitrile - 75-05-8	U003	-

14. TRANSPORT INFORMATION

DOT

UN-No UN1648
Proper Shipping Name ACETONITRILE
Hazard Class 3
Packing Group II

TDG

UN-No UN1648
Proper Shipping Name ACETONITRILE
Hazard Class 3
Packing Group II

IATA

UN-No 1648
Proper Shipping Name ACETONITRILE
Hazard Class 3
Packing Group II

IMDG/IMO

UN-No 1648
Proper Shipping Name ACETONITRILE
Hazard Class 3
Packing Group II

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Acetonitrile	T	X	-	200-835-2	-		X	X	X	X	KE-00067 X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b)

Component	TSCA 12(b)
Acetonitrile	Section 4

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Acetonitrile	75-05-8	99	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

Not applicable

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Acetonitrile	X		-

OSHA

Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Acetonitrile	5000 lb	-

California Proposition 65

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Acetonitrile	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade Serious risk, Grade 3

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

B2 Flammable liquid
D1A Very toxic materials
D2B Toxic materials

**16. OTHER INFORMATION**

Prepared By Regulatory Affairs
Thermo Fisher Scientific
Tel: (412) 490-8929

Creation Date 16-Jun-2009

Print Date 22-Sep-2009

Revision Summary "****", and red text indicates revision

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS

Creation Date 27-Apr-2009

Revision Date 23-Mar-2012

Revision Number 6

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Description:

Reach Registration Number

Cat No.

Synonyms

Methanol

01-2119433307-44

A456-1, A456-212, A456-4, A456-500

Methyl alcohol

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

Recommended Use

Laboratory chemicals.

Uses advised against

No Information available

Details of the supplier of the safety data sheet

Company

Fisher Scientific UK

Bishop Meadow Rd

Loughborough, Leicestershire, Great Britain

LE115RG

Tel: 01509 231166

E-mail address

begel.sdsdesk@thermofisher.com

Emergency Telephone Number

Chemtrec US: (800) 424-9300

Chemtrec EU: 001 (202) 483-7616

Tel: 01509 231166

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute oral toxicity	Category 3
Acute dermal toxicity	Category 3
Acute Inhalation Toxicity - Vapors	Category 3
Specific target organ systemic toxicity (single exposure)	Category 1
Flammable liquids.	Category 2

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

Symbol(s)

T - Toxic

F - Highly flammable

R-phrases(s)

R11 - Highly flammable

Risk Combination Phrases

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

Methanol

Revision Date 23-Mar-2012

SECTION 2. HAZARDS IDENTIFICATION
Label Elements

Signal Word
Danger
Hazard Statements

H301 - Toxic if swallowed
 H311 - Toxic in contact with skin
 H331 - Toxic if inhaled
 H370 - Causes damage to organs
 H225 - Highly flammable liquid and vapor

Precautionary Statements - EU (§28, 1272/2008)

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician
 P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
 P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water
 P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
 P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 P240 - Ground/Bond container and receiving equipment

Other Hazards

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.

Methanol

Revision Date 23-Mar-2012

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Methyl alcohol 67-56-1	EEC No. 200-659-6	>95	67-56-1	F; R11 T; R23/24/25- 39/23/24/25	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225)	01-2119433307-44
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For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4. FIRST AID MEASURES
Description of first aid measures
Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Ingestion

Do not induce vomiting. Call a physician or Poison Control Center immediately.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

Notes to Physician

Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES
Extinguishing media
Suitable Extinguishing Media

CO₂, dry chemical, dry sand, alcohol-resistant foam. Use water spray to cool unopened containers.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

Advice for fire-fighters

Methanol
Revision Date 23-Mar-2012

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing.

Environmental precautions

Should not be released into the environment.

Methods and material for containment and cleaning up

Remove all sources of ignition. Soak up with inert absorbent material. Take precautionary measures against static discharges. Keep in suitable, closed containers for disposal..

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Use only under a chemical fume hood. Use explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Flammables area.

Specific End Uses

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Component

Methyl alcohol

European Union	The United Kingdom	France	Belgium	Spain
TWA: 200 ppm 8 hr TWA: 260 mg/m ³ 8 hr Skin	WEL - TWA: 200 ppm TWA: 266 mg/m ³ TWA WEL - STEL: 250 ppm STEL; 333 mg/m ³ STEL	VME: 200 ppm 8 heures. restrictive limit VME: 260 mg/m ³ 8 heures. restrictive limit VLCT: 1000 ppm VLCT: 1300 mg/m ³ Skin	TWA: 200 ppm 8 uren TWA: 266 mg/m ³ 8 uren STEL: 250 ppm 15 minuten STEL: 333 mg/m ³ 15 minuten Skin	Skin VLA-ED: 200 ppm 8 horas VLA-ED: 266 mg/m ³ 8 horas

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Component
Methyl alcohol

Italy	Germany	Portugal	The Netherlands	Finland
TWA: 200 ppm 8 ore. TWA: 260 mg/m ³ 8 ore. Skin	200 ppm TWA; 270 mg/m ³ TWA Skin absorber	STEL: 250 ppm 15 minutos TWA: 200 ppm 8 horas Skin	Skin STEL: 520 mg/m ³ 15 minuten TWA: 260 mg/m ³ 8 uren	TWA: 200 ppm 8 tunteina TWA: 270 mg/m ³ 8 tunteina STEL: 250 ppm 15 minuutteina STEL: 330 mg/m ³ 15 minuutteina Skin

Component
Methyl alcohol

Austria	Denmark	Switzerland	Poland	Norway
Skin STEL: 800 ppm 15 Minuten STEL: 1040 mg/m ³ 15 Minuten TWA: 200 ppm 8 Stunden TWA: 260 mg/m ³ 8 Stunden	TWA: 200 ppm 8 timer TWA: 260 mg/m ³ 8 timer Skin	Skin STEL: 800 ppm 15 Minuten STEL: 1040 mg/m ³ 15 Minuten MAK: 200 ppm 8 Stunden MAK: 260 mg/m ³ 8 Stunden	NDSch: 300 mg/m ³ 15 minutach NDS: 100 mg/m ³ 8 godzinach	TWA: 100 ppm 8 timer TWA: 130 mg/m ³ 8 timer STEL: 150 ppm 15 minutter. STEL: 162.5 mg/m ³ 15 minutter. Skin

Component
Methyl alcohol

Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
TWA: 260.0 mg/m ³ Skin notation	Skin Notation TWA: 200 ppm 8 satima. TWA: 260 mg/m ³ 8 satima.	TWA: 200 ppm 8 hr. TWA: 260 mg/m ³ 8 hr. Skin	Skin-potential for cutaneous absorption TWA: 200 ppm TWA: 260 mg/m ³	TWA: 250 mg/m ³ 8 hodinách. Potential for cutaneous absorption Ceiling: 1000 mg/m ³

Component
Methyl alcohol

Estonia	Gibraltar	Greece	Hungary	Iceland
Skin notation TWA: 200 ppm 8 tundides. TWA: 260 mg/m ³ 8 tundides. TWA: 200 ppm 8 tundides. Methyl alcohol TWA: 250 mg/m ³ 8 tundides. Methyl alcohol STEL: 250 ppm 15 minutites. STEL: 350 mg/m ³ 15 minutites.	Skin notation TWA: 200 ppm 8 hr TWA: 260 mg/m ³ 8 hr	skin - potential for cutaneous absorption STEL: 250 ppm STEL: 325 mg/m ³ TWA: 200 ppm TWA: 260 mg/m ³	TWA: 260 mg/m ³ 8 óraban. potential for cutaneous absorption	TWA: 200 ppm 8 klukkustundum. TWA: 260 mg/m ³ 8 klukkustundum. Skin notation Ceiling: 400 ppm Ceiling: 520 mg/m ³

Component
Methyl alcohol

Latvia	Lithuania	Luxembourg	Malta	Romania
skin - potential for cutaneous exposure TWA: 200 ppm TWA: 260 mg/m ³	TWA: 200 ppm TWA: 260 mg/m ³ Skin notation	Possibility of significant uptake through the skin TWA: 200 ppm 8 Stunden TWA: 260 mg/m ³ 8 Stunden	possibility of significant uptake through the skin TWA: 200 ppm TWA: 260 mg/m ³	Skin notation TWA: 200 ppm 8 ore TWA: 260 mg/m ³ 8 ore STEL: 5 ppm 15 minute

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Component Methyl alcohol

Russia - TWA	Slovak Republic	Slovenia	Sweden	Turkey
TWA: 5 mg/m ³ Skin notation STEL: 15 mg/m ³ vapor	Potential for cutaneous absorption	TWA: 200 ppm 8 urah TWA: 260 mg/m ³ 8 urah Potential for cutaneous absorption	STV: 250 ppm 15 minuter STV: 350 mg/m ³ 15 minuter LLV: 200 ppm 8 timmar. LLV: 250 mg/m ³ 8 timmar. Skin notation	Skin notation TWA: 200 ppm 8 saat TWA: 260 mg/m ³ 8 saat

Biological limit values

Component Methyl alcohol

European Union	United Kingdom	France	Spain	Germany
		Methanol: 15 mg/L urine end of shift	Methanol: 15 mg/L urine end of shift	Methanol: 30 mg/L urine end of shift Methanol: 30 mg/L urine end of several shifts for long-term exposures

Component Methyl alcohol

Austria	Switzerland	Poland	Norway	Ireland
	Methanol: 30 mg/L urine end of shift, and after several shifts (for long-term exposures)			

Component Methyl alcohol

Bulgaria	Gibraltar	Latvia	Luxembourg	Romania
				Methanol: 6 mg/L urine end of shift

Component Methyl alcohol

Slovak Republic	Turkey
Methanol: 30 mg/L urine end of exposure or work shift Methanol: 30 mg/L urine after all work shifts for long-term exposure	

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

Exposure controls

Engineering Measures

Use only under a chemical fume hood Use explosion-proof electrical/ventilating/lighting/equipment Ensure that eyewash stations and safety showers are close to the workstation location

Personal protective equipment

Eye Protection Hand Protection

Tightly fitting safety goggles
Protective gloves

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Skin and body protection
Respiratory Protection

Long sleeved clothing
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures
Environmental exposure controls

Handle in accordance with good industrial hygiene and safety practice
No information available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Colorless
odor	Alcohol-like
pH	No information available.
Vapor Pressure	128 hPa @ 20 °C
Vapor Density	1.11 (Air = 1.0)
Viscosity	0.55 cP at 20 °C
Boiling Point/Range	64.7°C / 148.5°F@ 760 mmHg
Melting Point/Range	-98°C / -144.4°F
Flash Point	12°C / 53.6°F
Autoignition Temperature	455°C / 851°F
Explosion Limits	
Lower	6 vol%
Upper	31 vol%
Evaporation Rate	5.2 (ether = 1)
Water Solubility	miscible
Specific Gravity	0.791
Molecular Formula	C H ₄ O
Molecular Weight	32.04

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous Polymerization Hazardous polymerization does not occur.
Hazardous Reactions . None under normal processing..

Conditions to Avoid

Incompatible products, Heat, flames and sparks.

Incompatible Materials

Methanol

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Strong oxidizing agents, Strong acids, Acid anhydrides, Acid chlorides, Strong bases, Metals, Peroxides.

Hazardous Decomposition Products

Carbon monoxide (CO). Formaldehyde.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Component Information

Component
Methyl alcohol

LD50 Oral	LD50 Dermal	LC50 Inhalation
5628 mg/kg (Rat)	15800 mg/kg (Rabbit)	64000 ppm (Rat) 4 h 83.2 mg/L (Rat) 4 h

Chronic Toxicity

Carcinogenicity

There are no known carcinogenic chemicals in this product

Sensitization

No information available.

Mutagenic Effects

Mutagenic effects have occurred in experimental animals.

Reproductive Effects

Experiments have shown reproductive toxicity effects on laboratory animals

Developmental Effects

Developmental effects have occurred in experimental animals

Teratogenicity

Teratogenic effects have occurred in experimental animals.

Target Organs

Gastrointestinal tract (GI) Central nervous system (CNS) Eyes Respiratory system Skin Optic nerve Liver Kidney spleen Blood

Other Adverse Effects

The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information

Endocrine Disruptor Information

None known

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
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Methanol

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Methyl alcohol		Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	EC50 > 10000 mg/L 24h
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Persistence and degradability

No information available

Bioaccumulative potential

No information available.

Component	log Pow
Methyl alcohol	-0.74

Mobility in soil

Results of PBT and vPvB assessment

Other adverse effects

No information available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused Products Dispose of in accordance with local regulations

Contaminated Packaging Empty containers should be taken to local recyclers for disposal

SECTION 14. TRANSPORT INFORMATION

IMDG/IMO

UN-No	UN1230
Hazard Class	3
Subsidiary Hazard Class	6.1
Packing Group	II
Proper Shipping Name	METHANOL

Methanol

Revision Date 23-Mar-2012

SECTION 14. TRANSPORT INFORMATION
ADR

UN-No	UN1230
Hazard Class	3
Subsidiary Hazard Class	6.1
Packing Group	II
Proper Shipping Name	METHANOL

IATA

UN-No	UN1230
Hazard Class	3
Subsidiary Hazard Class	6.1
Packing Group	II
Proper Shipping Name	METHANOL

SECTION 15. REGULATORY INFORMATION
Safety, health and environmental regulations/legislation specific for the substance or mixture
International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Methyl alcohol	200-659-6	-		X	X	-	X	X	X	X	X

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

AICS - Inventory of Chemical Substances

KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment
SECTION 16. OTHER INFORMATION

Methanol

Revision Date 23-Mar-2012

SECTION 16. OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

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

Full text of H-Statements referred to under sections 2 and 3

H225 - Highly flammable liquid and vapor

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H331 - Toxic if inhaled

H370 - Causes damage to organs

Revision Date 23-Mar-2012**Revision Summary** (M)SDS sections updated, 1, 3, 16.**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006****Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet

Creation Date 01-Sep-2009

Revision Date 16-Apr-2012

Revision Number 6

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Description:

Iso-propanol

Reach Registration Number

01-2119457558-25

Cat No.

A461-212, A461-1, A461-500

Synonyms

2-Propanol; IPA; Isopropyl alcohol; Propan-2-ol

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

Recommended Use

Laboratory chemicals

Uses advised against

No Information available

Details of the supplier of the safety data sheet

Company

Fisher Scientific UK

Bishop Meadow Rd

Loughborough, Leicestershire, Great Britain

LE115RG

Tel: 01509 231166

E-mail address

begel.sdsdesk@thermofisher.com

Emergency Telephone Number

Tel: 01509 231166

Chemtrec US: (800) 424-9300

Chemtrec EU: 001 (202) 483-7616

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Serious Eye Damage/Eye Irritation	Category 2
Specific target organ systemic toxicity (single exposure)	Category 3
Flammable liquids.	Category 2

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

Symbol(s)

Xi - Irritant

R-phrases(s)

F - Highly flammable

R11 - Highly flammable

R36 - Irritating to eyes

R67 - Vapors may cause drowsiness and dizziness

Iso-propanol

Revision Date 16-Apr-2012

SECTION 2. HAZARDS IDENTIFICATION

Label Elements



Signal Word

Danger

Hazard Statements

H336 - May cause drowsiness or dizziness

H319 - Causes serious eye irritation

H225 - Highly flammable liquid and vapor

Precautionary Statements - EU (§28, 1272/2008)

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P240 - Ground/Bond container and receiving equipment

Other Hazards

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Isopropyl alcohol 67-63-0	EEC No. 200-661-7	>95	67-63-0	F; R11 Xi; R36 R67	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)	01-2119457558-25

Iso-propanol

Revision Date 16-Apr-2012

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4. FIRST AID MEASURES**Description of first aid measures****Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

Ingestion

Do not induce vomiting. Obtain medical attention.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.

Notes to Physician

Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES**Extinguishing media****Suitable Extinguishing Media**

CO₂, dry chemical, dry sand, alcohol-resistant foam. Cool closed containers exposed to fire with water spray.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothing.

Environmental precautions

Should not be released into the environment.

Iso-propanol
Revision Date 16-Apr-2012
Methods and material for containment and cleaning up

Remove all sources of ignition. Soak up with inert absorbent material. Use spark-proof tools and explosion-proof equipment. Keep in suitable, closed containers for disposal.. Take precautionary measures against static discharges.

SECTION 7. HANDLING AND STORAGE
Precautions for Safe Handling

Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area.

Specific End Uses
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Control parameters
Exposure limits
Component

Isopropyl alcohol

European Union	The United Kingdom	France	Belgium	Spain
	STEL: 500 ppm 15 min STEL: 1250 mg/m ³ 15 min TWA: 400 ppm 8 hr TWA: 999 mg/m ³ 8 hr	VLCT: 400 ppm VLCT: 980 mg/m ³	TWA: 200 ppm 8 uren TWA: 500 mg/m ³ 8 uren STEL: 400 ppm 15 minuten STEL: 1000 mg/m ³ 15 minuten	VLA-EC: 500 ppm 15 minutos VLA-EC: 1250 mg/m ³ 15 minutos VLA-ED: 400 ppm 8 horas VLA-ED: 998 mg/m ³ 8 horas

Component

Isopropyl alcohol

Italy	Germany	Portugal	The Netherlands	Finland
	MAK: 200 ppm 8 Stunden. MAK: 500 mg/m ³ 8 Stunden. Peak: 400 ppm Peak: 1000 mg/m ³ TWA: 200 ppm 8 Stunden. exposure factor 2 TWA: 500 mg/m ³ 8 Stunden. exposure factor 2	STEL: 400 ppm 15 minutos TWA: 200 ppm 8 horas		TWA: 200 ppm 8 tunteina TWA: 500 mg/m ³ 8 tunteina STEL: 250 ppm 15 minuutteina STEL: 620 mg/m ³ 15 minuutteina

Iso-propanol
Revision Date 16-Apr-2012
Component
Isopropyl alcohol

Austria	Denmark	Switzerland	Poland	Norway
STEL: 800 ppm 15 Minuten STEL: 2000 mg/m ³ 15 Minuten TWA: 200 ppm 8 Stunden TWA: 500 mg/m ³ 8 Stunden	TWA: 200 ppm 8 timer TWA: 490 mg/m ³ 8 timer	STEL: 400 ppm 15 Minuten STEL: 1000 mg/m ³ 15 Minuten MAK: 200 ppm 8 Stunden MAK: 500 mg/m ³ 8 Stunden	NDSch: 1200 mg/m ³ 15 minutach NDS: 900 mg/m ³ 8 godzinach	TWA: 100 ppm 8 timer TWA: 245 mg/m ³ 8 timer STEL: 150 ppm 15 minutter. STEL: 306.25 mg/m ³ 15 minutter.

Component
Isopropyl alcohol

Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
TWA: 980.0 mg/m ³ STEL : 1225.0 mg/m ³	TWA: 400 ppm 8 satima. TWA: 999 mg/m ³ 8 satima. STEL: 500 ppm 15 minutama. STEL: 1250 mg/m ³ 15 minutama.	TWA: 200 ppm 8 hr. STEL: 400 ppm 15 min Skin		TWA: 500 mg/m ³ 8 hodinách. Potential for cutaneous absorption Ceiling: 1000 mg/m ³

Component
Isopropyl alcohol

Estonia	Gibraltar	Greece	Hungary	Iceland
TWA: 150 ppm 8 tundides. TWA: 350 mg/m ³ 8 tundides. STEL: 250 ppm 15 minutites. STEL: 600 mg/m ³ 15 minutites.		STEL: 500 ppm STEL: 1225 mg/m ³ TWA: 400 ppm TWA: 980 mg/m ³	STEL: 2000 mg/m ³ 15 percekben. TWA: 500 mg/m ³ 8 órában. potential for cutaneous absorption	TWA: 200 ppm 8 klukkustundum. TWA: 490 mg/m ³ 8 klukkustundum. Skin notation Ceiling: 400 ppm Ceiling: 980 mg/m ³

Component
Isopropyl alcohol

Latvia	Lithuania	Luxembourg	Malta	Romania
STEL: 600 mg/m ³ TWA: 350 mg/m ³	TWA: 150 ppm TWA: 350 mg/m ³ STEL: 250 ppm STEL: 600 mg/m ³			TWA: 81 ppm 8 ore TWA: 200 mg/m ³ 8 ore STEL: 203 ppm 15 minute STEL: 500 mg/m ³ 15 minute

Component
Isopropyl alcohol

Russia - TWA	Slovak Republic	Slovenia	Sweden	Turkey
TWA: 10 mg/m ³ STEL: 50 mg/m ³ vapor	200 500	TWA: 200 ppm 8 urah TWA: 500 mg/m ³ 8 urah STEL: 800 ppm 15 minutah STEL: 2000 mg/m ³ 15 minutah	STV: 250 ppm 15 minuter STV: 600 mg/m ³ 15 minuter LLV: 150 ppm 8 timmar. LLV: 350 mg/m ³ 8 timmar.	

Biological limit values
Component

European Union	United Kingdom	France	Spain	Germany
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Iso-propanol

Revision Date 16-Apr-2012

Isopropyl alcohol					Acetone: 50 mg/L whole blood end of shift Acetone: 50 mg/L urine end of shift
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Component	Bulgaria	Gibraltar	Latvia	Luxembourg	Romania
Isopropyl alcohol					Acetone: 50 mg/L urine end of shift

Component	Slovak Republic	Turkey
Isopropyl alcohol	Acetone: 50 mg/L blood end of exposure or work shift Acetone: 50 mg/L urine end of exposure or work shift	

Derived No Effect Level (DNEL) No information available.
Predicted No Effect Concentration (PNEC) No information available.

Exposure controls

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location Use explosion-proof electrical/ventilating/lighting/equipment

Personal protective equipment

- Eye Protection** Safety glasses with side-shields
- Hand Protection** Protective gloves
- Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure
- Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice
Environmental exposure controls No information available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Colorless
odor	Alcohol-like
pH	7 1% aq. sol.
Vapor Pressure	43 mmHg @ 20 °C
Vapor Density	2.1 (Air = 1.0)
Viscosity	2.27 mPa.s at 20 °C
Boiling Point/Range	81 - 83°C / 177.8 - 181.4°F @ 760 mmHg
Melting Point/Range	-89.5°C / -129.1°F
Flash Point	12°C / 53.6°F
Autoignition Temperature	425°C / 797°F

Iso-propanol

Revision Date 16-Apr-2012

Explosion Limits

Lower

2 Vol%

Upper

12 Vol%

Evaporation Rate

1.7 (Butyl Acetate = 1.0)

Water Solubility

miscible

Specific Gravity

0.785

Molecular Formula

C₃ H₈ O

Molecular Weight

60.1

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Hygroscopic.

Possibility of Hazardous Reactions

Hazardous Polymerization

Hazardous polymerization does not occur.

Hazardous Reactions .

None under normal processing..

Conditions to Avoid

Incompatible products, Heat, flames and sparks, Exposure to moist air or water.

Incompatible Materials

Strong oxidizing agents, Acids, Halogens, Acid anhydrides.

Hazardous Decomposition Products

Carbon monoxide (CO). Carbon dioxide (CO₂). peroxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Component Information

Component

Isopropyl alcohol

LD50 Oral	LD50 Dermal	LC50 Inhalation
4396 mg/kg (Rat)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h

Iso-propanol

Revision Date 16-Apr-2012

Chronic Toxicity

Carcinogenicity

There are no known carcinogenic chemicals in this product

Sensitization

No information available.

Mutagenic Effects

Mutagenic effects have occurred in experimental animals.

Reproductive Effects

Experiments have shown reproductive toxicity effects on laboratory animals

Developmental Effects

Developmental effects have occurred in experimental animals

Teratogenicity

Teratogenic effects have occurred in experimental animals.

Target Organs

Skin Respiratory system Eyes Central nervous system (CNS) Liver Kidney

Other Adverse Effects

See actual entry in RTECS for complete information

Endocrine Disruptor Information

None known

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects

Do not empty into drains

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Isopropyl alcohol	1000 mg/L EC50 > 72 h 1000 mg/L EC50 > 96 h	1400000 µg/L LC50 96 h 9640 mg/L LC50 96 h 11130 mg/L LC50 96 h	= 35390 mg/L EC50 Photobacterium phosphoreum 5 min	13299 mg/L EC50 = 48 h

Persistence and degradability

Expected to be biodegradable

Bioaccumulative potential

No information available.

Component	log Pow
Isopropyl alcohol	0.05

Mobility in soil

Results of PBT and vPvB assessment

Other adverse effects

No information available

Iso-propanol

Revision Date 16-Apr-2012

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused Products

Dispose of in accordance with local regulations

Contaminated Packaging

Empty containers should be taken to local recyclers for disposal

SECTION 14. TRANSPORT INFORMATION

IMDG/IMO

UN-No	UN1219
Hazard Class	3
Packing Group	II
Proper Shipping Name	Isopropanol (Isopropyl alcohol)

ADR

UN-No	UN1219
Hazard Class	3
Packing Group	II
Proper Shipping Name	Isopropanol (Isopropyl alcohol)

IATA

UN-No	UN1219
Hazard Class	3
Packing Group	II
Proper Shipping Name	Isopropanol

SECTION 15. REGULATORY INFORMATION

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

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Isopropyl alcohol	200-661-7	-		X	X	-	X	X	X	X	X

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

Iso-propanol

Revision Date 16-Apr-2012

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

AICS - Inventory of Chemical Substances

KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment

SECTION 16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R11 - Highly flammable

R36 - Irritating to eyes

R67 - Vapors may cause drowsiness and dizziness

Full text of H-Statements referred to under sections 2 and 3

H225 - Highly flammable liquid and vapor

H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness

Revision Date 16-Apr-2012

Revision Summary

Reason for revision (M)SDS sections updated, 1, 3, 8, 9.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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End of Safety Data Sheet

Revision Date 16-Nov-2010

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION**Product Identifier****Product Description:**

Water, CertiFied AR, 2.5

Cat No.

W6-212, W6-1, W6-500

Relevant identified uses of the substance or mixture and uses advised against**Recommended Use**

Laboratory chemicals

Uses advised against

No Information available

Details of the supplier of the safety data sheet**Company**

Fisher Scientific UK
Bishop Meadow Rd
Loughborough, Leicestershire, Great Britain
LE115RG
Tel: 01509 231166

E-mail address

begel.sdsdesk@thermofisher.com

Emergency Telephone Number

Tel: 01509 231166 Chemtrec US: (800) 424-9300

Chemtrec EU: (202) 483-7616

2. HAZARDS IDENTIFICATION**Classification of the substance or mixture****REGULATION (EC) No 1272/2008**

Not hazardous

Classification according to EU Directives 67/548/EEC or 1999/45/EC*For the full text of the R phrases mentioned in this Section, see Section 16***R -phrase(s)**

none

Label Elements**Signal Word**

None

Hazard Statements**Other Hazards**

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

For the full text of the R phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact	No hazards which require special first aid measures
Skin Contact	No hazards which require special first aid measures
Ingestion	No hazards which require special first aid measures
Inhalation	No hazards which require special first aid measures
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Non-combustible

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation Use personal protective equipment

Environmental precautions

No special environmental precautions required

Methods and material for containment and cleaning up

Soak up with inert absorbent material Keep in suitable and closed containers for disposal

7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment Ensure adequate ventilation Avoid contact with skin, eyes and clothing Avoid ingestion and inhalation

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place

Specific End Uses

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

Exposure controls

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location Ensure adequate ventilation, especially in confined areas

Personal protective equipment

Eye Protection

Safety glasses with side-shields

Hand Protection

Protective gloves

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State

Liquid

Appearance

Colorless

odor

none

pH

7

Vapor Pressure

13.2 mmHg @ 20 °C

Vapor Density

No information available.

Viscosity

1 cP @ 20°C

Boiling Point/Range

100°C / 212°F

Melting Point/Range

0°C / 32°F

Flash Point

Not applicable

Evaporation Rate

No information available.

Specific Gravity

1.000

Molecular Formula

H2O

Molecular Weight

18.0134

10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous Polymerization

Hazardous polymerization does not occur.

Hazardous Reactions .

None under normal processing..

Conditions to Avoid

Excess heat, Do not freeze.

Incompatible Materials

Powdered metals.

Hazardous Decomposition Products

None under normal use.

11. TOXICOLOGICAL INFORMATION**Information on Toxicological Effects****Acute Toxicity****Product Information**

See actual entry in RTECS for complete information.

Component Information**Chronic Toxicity****Carcinogenicity**

There are no known carcinogenic chemicals in this product

Sensitization

No information available.

Mutagenic Effects

No information available.

Reproductive Effects

No information available.

Developmental Effects

No information available.

Target Organs

None known.

Endocrine Disruptor Information

None known

12. ECOLOGICAL INFORMATION**Toxicity****Ecotoxicity effects**

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants

Persistence and degradability

No information available

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment**Other adverse effects**

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Waste from Residues / Unused Products**

Dispose of in accordance with local regulations

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO Not regulated

ADR Not regulated

IATA Not regulated

15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****International Inventories****Legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory Lists

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

AICS - Inventory of Chemical Substances

KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment**16. OTHER INFORMATION****Text of R phrases mentioned in Section 2-3**

No information available.

Revision Date 16-Nov-2010

Revision Summary Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

End of Safety Data Sheet