

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

1.1. Product identification

| | |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Description: | Methanol |
| Product Grade: | SQ, HPLC, ER, EL, GC HS |
| Cat No. : | Q32407, Q33065, Q33066, Q34457, Q3445C, Q43637G, Q3240C, Q34455, Q43636, Q49505, Q3445H, Q32405, Q32406, Q33067, Q3445Q, Q41757, Q43606, Q43607, Q32407Z, Q3240CSCS, Q43637, Q3445CFX, Q34457FX, Q43637FX, Q3240CFX |
| Synonyms | Methyl alcohol |
| CAS-No | 67-56-1 |
| EC-No. | 200-659-6 |
| Molecular Formula | C H4 O |
| Reach Registration Number | 01-2119433307-44 |

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

| | |
|---------------------------------------|---------------------------------------------------------------------------------------------|
| Recommended Use | Laboratory chemicals. |
| Sector of use | SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites |
| Product category | PC21 - Laboratory chemicals |
| Process categories | PROC15 - Use as a laboratory reagent |
| Environmental release category | ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates) |
| Uses advised against | No Information available |

1.3. Details of the supplier of the safety data sheet

| | |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Company | Thermo Fisher Scientific India Pvt. Ltd 403-404, B-wing, Delphi, Hiranandani Business Park, Powai, Mumbai 400076, INDIA. |
| E-mail address | laboratorysolutions@thermofisher.com |

1.4. Emergency telephone number

India Toll Free: 18 00 22 22 30
 Chemtrec US: (800)424-9300
 Chemtrec EU: 001(202)483-7616

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Flammable liquids Category 2

Health hazards

| | |
|----------------------------------------------------|------------|
| Acute oral toxicity | Category 3 |
| Acute dermal toxicity | Category 3 |
| Acute Inhalation Toxicity - Vapors | Category 3 |
| Specific target organ toxicity - (single exposure) | Category 1 |

Environmental hazards

Based on available data, the classification criteria are not met

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2.2. Label elements



Signal Word

Danger

Hazard Statements

- 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

Precautionary Statements

- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician
- 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
- P240 - Ground/Bond container and receiving equipment

2.3. Other hazards

Substance is not considered to be persistent, bioaccumulative and toxic (PBT). Substance is not considered to be very persistent and very bioaccumulative (vPvB).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

| Component | CAS-No | EC-No. | Weight % | CLP Classification - Regulation (EC) No 1272/2008 |
|----------------|---------|-----------|----------|--------------------------------------------------------------------------------------------------------------|
| Methyl alcohol | 67-56-1 | 200-659-6 | >95 | Flam. Liq. 2 (H225) Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) |

| | |
|---------------------------|------------------|
| Reach Registration Number | 01-2119433307-44 |
|---------------------------|------------------|

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical

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| | |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | advice. |
| 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 method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. |
| Protection of First-aiders | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Remove all sources of ignition. No artificial respiration, mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus. Avoid contact with skin. |

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

Breathing difficulties. May cause blindness: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

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

Notes to Physician Treat symptomatically. Symptoms may be delayed.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray.

Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

5.2. 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. Vapors may form explosive mixtures with air.

Hazardous Combustion Products

Carbon monoxide (CO), Formaldehyde.

5.3. Advice 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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

6.2. Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear personal protective equipment. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not ingest. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

Hygiene Measures

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **EU** - Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. **UK** - EH40/2005 Containing the workplace exposure limits (WELs) for use with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended). Updated by September 2006 official press release and October 2007 Supplement. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

| Component | European Union | The United Kingdom | France | Belgium | Spain |
|----------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Methyl alcohol | 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 | TWA / VME: 200 ppm (8 heures). restrictive limit TWA / VME: 260 mg/m ³ (8 heures). restrictive limit STEL / VLCT: 1000 ppm. STEL / VLCT: 1300 mg/m ³ . Peau | TWA: 200 ppm 8 uren TWA: 266 mg/m ³ 8 uren STEL: 250 ppm 15 minuten STEL: 333 mg/m ³ 15 minuten Huid | TWA / VLA-ED: 200 ppm (8 horas) TWA / VLA-ED: 266 mg/m ³ (8 horas) Piel |

| Component | Italy | Germany | Portugal | The Netherlands | Finland |
|----------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Methyl alcohol | TWA: 200 ppm 8 ore. Media Ponderata nel Tempo TWA: 260 mg/m ³ 8 ore. Media Ponderata nel Tempo Pelle | 200 ppm TWA; 270 mg/m ³ TWA Skin absorber | STEL: 250 ppm 15 minutos TWA: 200 ppm 8 horas TWA: 260 mg/m ³ 8 horas Pele | huid TWA: 133 mg/m ³ 8 uren TWA: 100 ppm 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 Iho |

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| Component | Austria | Denmark | Switzerland | Poland | Norway |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Methyl alcohol | Haut MAK-KZW: 800 ppm 15 Minuten MAK-KZW: 1040 mg/m ³ 15 Minuten MAK-TMW: 200 ppm 8 Stunden MAK-TMW: 260 mg/m ³ 8 Stunden | TWA: 200 ppm 8 timer TWA: 260 mg/m ³ 8 timer Hud | Haut/Peau STEL: 800 ppm 15 Minuten STEL: 1040 mg/m ³ 15 Minuten TWA: 200 ppm 8 Stunden TWA: 260 mg/m ³ 8 Stunden | STEL: 300 mg/m ³ 15 minutach TWA: 100 mg/m ³ 8 godzinach | TWA: 100 ppm 8 timer TWA: 130 mg/m ³ 8 timer STEL: 100 ppm 15 minutter. STEL: 130 mg/m ³ 15 minutter. Hud |

| Component | Bulgaria | Croatia | Ireland | Cyprus | Czech Republic |
|----------------|---------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Methyl alcohol | TWA: 200 ppm TWA: 260.0 mg/m ³ Skin notation | kože TWA-GVI: 200 ppm 8 satima. TWA-GVI: 260 mg/m ³ 8 satima. | TWA: 200 ppm 8 hr. TWA: 260 mg/m ³ 8 hr. STEL: 600 ppm 15 min STEL: 780 mg/m ³ 15 min 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 | Estonia | Gibraltar | Greece | Hungary | Iceland |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Methyl alcohol | Nahk TWA: 200 ppm 8 tundides. TWA: 260 mg/m ³ 8 tundides. 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 órában. AK lehetséges borön keresztül felszívódás | TWA: 200 ppm 8 klukkustundum. TWA: 260 mg/m ³ 8 klukkustundum. Skin notation Ceiling: 400 ppm Ceiling: 520 mg/m ³ |

| Component | Latvia | Lithuania | Luxembourg | Malta | Romania |
|----------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Methyl alcohol | skin - potential for cutaneous exposure TWA: 200 ppm TWA: 260 mg/m ³ | TWA: 200 ppm IPRD TWA: 260 mg/m ³ IPRD Oda | 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 |

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

Biological limit values

List source(s):

| Component | European Union | United Kingdom | France | Spain | Germany |
|----------------|----------------|----------------|--------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Methyl alcohol | | | 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 | Italy | Finland | Denmark | Bulgaria | Romania |
|----------------|-------|---------|---------|----------|-------------------------------------|
| Methyl alcohol | | | | | Methanol: 6 mg/L urine end of shift |

| Component | Gibraltar | Latvia | Slovak Republic | Luxembourg | Turkey |
|----------------|-----------|--------|----------------------------------------------------------------------------------|------------|--------|
| Methyl alcohol | | | Methanol: 30 mg/L urine end of exposure or work shift Methanol: 30 mg/L urine | | |

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| | | | |
|--|--|--|----------------------------------------------|
| | | | after all work shifts for long-term exposure |
|--|--|--|----------------------------------------------|

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
 MDHS70 General methods for sampling airborne gases and vapours
 MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography
 MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

Derived No Effect Level (DNEL) See table for values

| Route of exposure | Acute effects (local) | Acute effects (systemic) | Chronic effects (local) | Chronic effects (systemic) |
|-------------------|-----------------------|--------------------------|-------------------------|----------------------------|
| Oral | | | | |
| Dermal | | 40 mg/kg bw/day | | 40 mg/kg bw/day |
| Inhalation | 260 mg/m ³ | 260 mg/m ³ | 260 mg/m ³ | 260 mg/m ³ |

Predicted No Effect Concentration (PNEC) See values below.

| | |
|------------------------------------|-------------|
| Fresh water | 154 mg/l |
| Fresh water sediment | 570.4 mg/kg |
| Marine water | 15.4 mg/l |
| Microorganisms in sewage treatment | 100 mg/l |
| Soil (Agriculture) | 23.5 mg.kg |

8.2. 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. Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

| | |
|------------------------|-------------------------------------------------------------|
| Eye Protection | Tightly fitting safety goggles (European standard - EN 166) |
| Hand Protection | Protective gloves |

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments |
|-----------------|-------------------|-----------------|-------------|--------------------------------------------------------------------------------|
| Butyl rubber | > 480 minutes | 0.35 mm | Level 6 | As tested under EN374-3 Determination of Resistance to Permeation by Chemicals |
| Viton (R) | > 480 minutes | 0.70 mm | EN 374 | |
| Neoprene gloves | < 60 minutes | 0.45 mm | | |
| Nitrile rubber | < 30 minutes | 0.38 mm | | |

Skin and body protection Long sleeved clothing

Inspect gloves before use.
 Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)
 Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.
 Remove gloves with care avoiding skin contamination.

Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
 To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Recommended Filter type: low boiling organic solvent Type AX Brown conforming to

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| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Small scale/Laboratory use | EN371 Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141 When RPE is used a face piece Fit Test should be conducted |
| Environmental exposure controls | No information available. |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | | |
|------------------------------------------------|---------------------------------------------|---------------------------------------------|
| Appearance | Colorless | |
| Physical State | Liquid | |
| Odor | Alcohol-like | |
| Odor Threshold | No data available | |
| pH | Not applicable | |
| Melting Point/Range | -98 °C / -144.4 °F | |
| Softening Point | No data available | |
| Boiling Point/Range | 64.7 °C / 148.5 °F | @ 760 mmHg |
| Flash Point | 12 °C / 53.6 °F | Method - No information available |
| Evaporation Rate | 5.2 (ether = 1) | |
| Flammability (solid,gas) | Not applicable | Liquid |
| Explosion Limits | Lower 6 vol% Upper 31 vol% | |
| Vapor Pressure | 128 hPa @ 20 °C | |
| Vapor Density | 1.11 | (Air = 1.0) |
| Specific Gravity / Density | 0.791 | |
| Bulk Density | Not applicable | Liquid |
| Water Solubility | Miscible | |
| Solubility in other solvents | No information available | |
| Partition Coefficient (n-octanol/water) | | |
| Component | log Pow | |
| Methyl alcohol | -0.74 | |
| Autoignition Temperature | 455 - °C / 851 - °F | |
| Decomposition Temperature | No data available | |
| Viscosity | 0.55 cP at 20 °C | |
| Explosive Properties | No information available | Vapors may form explosive mixtures with air |
| Oxidizing Properties | No information available | |

9.2. Other information

| | |
|--------------------------|--------------------|
| Molecular Formula | C H4 O |
| Molecular Weight | 32.04 |
| VOC Content(%) | 100 |
| Surface tension | 0.02255 N/m @ 20°C |

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity None known, based on information available

10.2. Chemical stability Stable under normal conditions

10.3. Possibility of hazardous reactions

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

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10.4. Conditions to avoid

Incompatible products. Heat, flames and sparks. Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Carbon monoxide (CO). Formaldehyde.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information

(a) acute toxicity;

| | |
|------------|------------|
| Oral | Category 3 |
| Dermal | Category 3 |
| Inhalation | Category 3 |

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|----------------|--------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------|
| Methyl alcohol | Calc. ATE 60 mg/kg LD50 > 1187 – 2769 mg/kg (Rat) | Calc. ATE 60 mg/kg LD50 = 17100 mg/kg (Rabbit) | Calc. ATE 0.6 mg/L (vapours) or 0.5 mg/L (mists) LC50 = 128.2 mg/L (Rat) 4 h |

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Based on available data, the classification criteria are not met

(d) respiratory or skin sensitization;

| | |
|-------------|------------------------------------------------------------------|
| Respiratory | Based on available data, the classification criteria are not met |
| Skin | Based on available data, the classification criteria are not met |

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

(f) carcinogenicity; Based on available data, the classification criteria are not met

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Reproductive Effects Developmental Effects

Based on available data, the classification criteria are not met
Experiments have shown reproductive toxicity effects on laboratory animals.
Developmental effects have occurred in experimental animals. Component substance is listed on California Proposition 65 as a developmental hazard.
Teratogenicity
Teratogenic effects have occurred in experimental animals.

(h) STOT-single exposure;

Category 1

Results / Target organs

Optic nerve.

(i) STOT-repeated exposure;

Based on available data, the classification criteria are not met

Target Organs

Gastrointestinal tract (GI), Eyes, Optic nerve, Liver, Kidney, spleen, Blood.

(j) aspiration hazard;

Symptoms / effects, both acute and delayed

Based on available data, the classification criteria are not met
May cause blindness: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

SECTION 12: ECOLOGICAL INFORMATION

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12.1. Toxicity

Ecotoxicity effects

| Component | Freshwater Fish | Water Flea | Freshwater Algae | Microtox |
|----------------|-----------------------------------------------|-----------------------|------------------|---------------------------------------------------------------------------------|
| Methyl alcohol | Pimephales promelas: LC50 > 10000 mg/L 96h | EC50 > 10000 mg/L 24h | | EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min |

12.2. Persistence and degradability

Persistence

Readily biodegradable

Persistence is unlikely, based on information available.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely

| Component | log Pow | Bioconcentration factor (BCF) |
|----------------|---------|-------------------------------|
| Methyl alcohol | -0.74 | 10 (fish) |

12.4. Mobility in soil

Surface tension

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Will likely be mobile in the environment due to its volatility. Disperses rapidly in air.

0.02255 N/m @ 20°C

12.5. Results of PBT and vPvB assessment

Substance is not considered to be persistent, bioaccumulative and toxic (PBT). Substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

Persistent Organic Pollutant

This product does not contain any known or suspected substance

Ozone Depletion Potential

This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

European Waste Catalogue (EWC)

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

Other Information

Waste codes should be assigned by the user based on the application for which the product was used. Do not dispose of waste into sewer. Can be incinerated, when in compliance with local regulations.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number

UN1230

14.2. UN proper shipping name

METHANOL

14.3. Transport hazard class(es)

3

Subsidiary Hazard Class

6.1

14.4. Packing group

II

ADR

14.1. UN number

UN1230

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14.2. UN proper shipping name METHANOL
14.3. Transport hazard class(es) 3
 Subsidiary Hazard Class 6.1
14.4. Packing group II

IATA

14.1. UN number UN1230
14.2. UN proper shipping name METHANOL
14.3. Transport hazard class(es) 3
 Subsidiary Hazard Class 6.1
14.4. Packing group II
14.5. Environmental hazards No hazards identified
14.6. Special precautions for user No special precautions required
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories Complete Regulatory Information contained in following SDS's. Australia China Canada Europe TSCA Korea Philippines Japan

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

| Component | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|----------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Methyl alcohol | 500 tonne | 5000 tonne |

National Regulations

| Component | Germany - Water Classification (VwVwS) | Germany - TA-Luft Class |
|----------------|----------------------------------------|-------------------------|
| Methyl alcohol | WGK 1 WGK 2 | |

| Component | France - INRS (Tables of occupational diseases) |
|----------------|------------------------------------------------------|
| Methyl alcohol | Tableaux des maladies professionnelles (TMP) - RG 84 |

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.
 Take note of Dir 94/33/EC on the protection of young people at work
 Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

SECTION 16: OTHER INFORMATION

Full Text of H-/EUH-Statements Referred to Under Section 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

Legend

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CAS - Chemical Abstracts Service

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

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

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

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

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - Volatile Organic Compounds

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

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Revision Summary SDS section 1 updated and update of Format.

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

Disclaimer

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End of Safety Data Sheet