



EA-50

Safety Data Sheet

according to the Model Work Health and Safety Regulations

Date of issue: 28/11/2018

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Version: 1.0

SECTION 1: Identification : Product identifier and chemical identity

1.1. Product identifier

Trade name : EA-50
Product code : 3801620, 3801621, 3801622

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Cytologic Stain
Restrictions on use : Other uses

1.4. Supplier's details

Leica Microsystems Pty Ltd
Suite 2, Level 3, Building A, Talavera Road
Macquarie Park - 2113 Australia

1.5. Emergency phone number

| Organisation/Company | Emergency number |
|--|------------------|
| ChemTrec | 800-424-9300 |
| International Calls (call collect) | +1 703-527-3887 |
| Australia 24 Hr Poisons Information Centre | 13 11 26 |

SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Flammable liquids, Category 1 H224
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2A H319

2.2. Label elements

Signal word (GHS-AU) : Danger
Hazard statements (GHS-AU) : H224 - Extremely flammable liquid and vapour
H315 - Causes skin irritation
H319 - Causes serious eye irritation
Precautionary statements (GHS-AU) : P210 - Keep away from heat, sparks, open flames, hot surfaces. No smoking.
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P264 - Wash thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P321 - Specific treatment (see supplemental first aid instruction on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P370+P378 - In case of fire: Use dry chemical, foam, or water spray for extinction.
P403+P235 - Store in a well-ventilated place. Keep cool
P501 - Dispose of contents/container in accordance with all local/regional/national/international regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

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| Name | CAS-No. | Compound type | % | Classification according to the model Work Health and Safety Regulations (WHS Regulations) |
|-------------|---------|---------------|------|--|
| Ethanol | 64-17-5 | | < 60 | Not classified |
| methanol | 67-56-1 | | < 30 | Flam. Liq. 2, H225 |
| Isopropanol | 67-63-0 | | < 5 | Not classified |
| acetic acid | 64-19-7 | | < 3 | Flam. Liq. 3, H226 Acute Tox. 5 (Oral), H303 Skin Corr. 1A, H314 |

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a physician immediately.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Rinse mouth. Call a physician immediately.

4.2. Symptoms caused by exposure

- Symptoms/effects after skin contact : Irritation.

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

- Other medical advice or treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour.

5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe mist/vapours/spray.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

- Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

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SECTION 7: Handling and storage, including how the chemical may be safely used

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing.
- Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment.
- Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters - exposure standards

| Ethanol (64-17-5) | | |
|-------------------|------------------|--|
| USA - ACGIH | ACGIH STEL (ppm) | 1000 ppm (Ethanol; USA; Short time value; TLV - Adopted Value) |

| methanol (67-56-1) | | |
|--------------------|------------------|--|
| USA - ACGIH | ACGIH TWA (ppm) | 200 ppm (Methanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value) |
| USA - ACGIH | ACGIH STEL (ppm) | 250 ppm (Methanol; USA; Short time value; TLV - Adopted Value) |

| Isopropanol (67-63-0) | | |
|-----------------------|------------------|--|
| USA - ACGIH | ACGIH TWA (ppm) | 200 ppm (2-propanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value) |
| USA - ACGIH | ACGIH STEL (ppm) | 400 ppm (2-propanol; USA; Short time value; TLV - Adopted Value) |
| USA - ACGIH | Remark (ACGIH) | Eye & URT irr; CNS impair |

| acetic acid (64-19-7) | | |
|-----------------------|------------------|--|
| USA - ACGIH | ACGIH TWA (ppm) | 10 ppm (Acetic acid; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value) |
| USA - ACGIH | ACGIH STEL (ppm) | 15 ppm (Acetic acid; USA; Short time value; TLV - Adopted Value) |

Exposure limit values for the other components

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Personal protective equipment

- Hand protection : Protective gloves
- Eye protection : Safety glasses
- Skin and body protection : Wear suitable protective clothing

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Respiratory protection : Wear respiratory protection
Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Physical state : Liquid
Colour : red
Odour : Alcohol odour
Odour threshold : No data available
pH : 5 - 5.5
Relative evaporation rate (butylacetate=1) : No data available
Melting point : Not applicable
Boiling point : No data available
Flash point : 64 °F /18 °C
Auto-ignition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : No data available
Relative density : No data available
Density : 0.79
Solubility : No data available
Log Pow : No data available
Viscosity : No data available
Explosive properties : No data available
Explosive limits : No data available
Minimum ignition energy : No data available
Fat solubility : No data available

SECTION 10: Stability and reactivity

Reactivity : Highly flammable liquid and vapour.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No dangerous reactions known under normal conditions of use.
Conditions to avoid : Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

| Ethanol (64-17-5) | |
|----------------------------|--|
| LD50 oral rat | 10740 mg/kg bodyweight (Rat; OECD 401: Acute Oral Toxicity; Experimental value) |
| LD50 dermal rabbit | > 16000 mg/kg (Rabbit; Literature study) |
| methanol (67-56-1) | |
| LD50 oral rat | > 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence) |
| LD50 dermal rabbit | 15800 mg/kg (Rabbit; Literature study) |
| LC50 inhalation rat (mg/l) | 85 mg/l/4h (Rat; Literature study) |
| LC50 inhalation rat (ppm) | 64000 ppm/4h (Rat; Literature study) |
| Isopropanol (67-63-0) | |
| LD50 dermal rabbit | 12870 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 16.4; Rabbit) |
| LC50 inhalation rat (mg/l) | 73 mg/l/4h (Rat) |

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| acetic acid (64-19-7) | |
|------------------------------|---|
| LD50 oral rat | 3310 mg/kg bodyweight (Rat; Other; Read-across) |

| | |
|-----------------------------------|---|
| Skin corrosion/irritation | : Causes skin irritation. pH: 5 - 5.5 |
| Serious eye damage/irritation | : Causes serious eye irritation. pH: 5 - 5.5 |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |

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|--------------|------|
| Density | 0.79 |

SECTION 12: Ecological information

According to the National Code of Practice for the Preparation of Material Safety Data Sheets, Environmental classification information is not mandatory. Information relevant for GHS classification is available on request

12.1. Ecotoxicity

| | |
|--------------------------|---|
| Ecology - general | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Acute aquatic toxicity | : Not classified |
| Chronic aquatic toxicity | : Not classified |

12.2. Persistence and degradability

| Ethanol (64-17-5) | |
|---------------------------------|---|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. |
| Biochemical oxygen demand (BOD) | 0.8 - 0.967 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.7 g O ₂ /g substance |
| ThOD | 2.1 g O ₂ /g substance |
| BOD (% of ThOD) | 0.43 |

| methanol (67-56-1) | |
|---------------------------------|---|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. |
| Biochemical oxygen demand (BOD) | 0.6 - 1.12 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.42 g O ₂ /g substance |
| ThOD | 1.5 g O ₂ /g substance |
| BOD (% of ThOD) | 0.8 (Literature study) |

| Isopropanol (67-63-0) | |
|---------------------------------|---|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test) data on mobility of the substance available. |
| Biochemical oxygen demand (BOD) | 1.19 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 2.23 g O ₂ /g substance |
| ThOD | 2.4 g O ₂ /g substance |

| acetic acid (64-19-7) | |
|---------------------------------|---|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. |
| Biochemical oxygen demand (BOD) | 0.6 - 0.74 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.03 g O ₂ /g substance |
| ThOD | 1.07 g O ₂ /g substance |

12.3. Bioaccumulative potential

| Ethanol (64-17-5) | |
|--------------------------|-----------------------------------|
| BCF fish 1 | See section 12.1 on ecotoxicology |

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| Ethanol (64-17-5) | |
|---------------------------|--|
| Log Pow | See section 12.1 on ecotoxicology |
| Log Koc | See section 12.1 on ecotoxicology |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

| methanol (67-56-1) | |
|---------------------------|--|
| BCF fish 1 | See section 12.1 on ecotoxicology |
| Log Pow | See section 12.1 on ecotoxicology |
| Log Koc | See section 12.1 on ecotoxicology |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| Isopropanol (67-63-0) | |
|------------------------------|--|
| Log Pow | See section 12.1 on ecotoxicology |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

| acetic acid (64-19-7) | |
|------------------------------|--|
| BCF fish 1 | See section 12.1 on ecotoxicology |
| Log Pow | See section 12.1 on ecotoxicology |
| Log Koc | See section 12.1 on ecotoxicology |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

12.4. Mobility in soil

| Ethanol (64-17-5) | |
|--------------------------|-----------------------------------|
| Surface tension | 0.022 N/m (20 °C) |
| Log Pow | See section 12.1 on ecotoxicology |
| Log Koc | See section 12.1 on ecotoxicology |

| methanol (67-56-1) | |
|---------------------------|-----------------------------------|
| Surface tension | 0.023 N/m (20 °C) |
| Log Pow | See section 12.1 on ecotoxicology |
| Log Koc | See section 12.1 on ecotoxicology |

| Isopropanol (67-63-0) | |
|------------------------------|-----------------------------------|
| Surface tension | 0.021 N/m (25 °C) |
| Log Pow | See section 12.1 on ecotoxicology |

| acetic acid (64-19-7) | |
|------------------------------|---|
| Surface tension | 0.028 N/m (20 °C) |
| Log Pow | See section 12.1 on ecotoxicology |
| Log Koc | See section 12.1 on ecotoxicology |
| Ecology - soil | May be harmful to plant growth, blooming and fruit formation. |

12.5. Other adverse effects

| | |
|-----------------------|---------------------------------------|
| Ozone | : Not classified |
| Other adverse effects | : No additional information available |

SECTION 13: Disposal considerations

| | |
|-------------------------|---|
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
|-------------------------|---|

SECTION 14: Transport information

14.1. UN number

| | |
|---------------|--------|
| UN-No. (IMDG) | : 1987 |
| UN-No. (IATA) | : 1987 |

14.2. Proper Shipping Name - Addition

| | |
|-----------------------------|--------------------|
| Proper Shipping Name (IMDG) | : ALCOHOLS, N.O.S. |
| Proper Shipping Name (IATA) | : Alcohols, n.o.s. |

14.3. Transport hazard class(es)

IMDG

| | |
|-----------------------------------|-----|
| Transport hazard class(es) (IMDG) | : 3 |
| Danger labels (IMDG) | : 3 |

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IATA

Transport hazard class(es) (IATA) : 3

Hazard labels (IATA) : 3



14.4. Packing group

Packing group (IMDG) : II

Packing group (IATA) : II

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

Specific storage requirement : No data available

Shock sensitivity : No data available

14.7. Additional information

Other information : No supplementary information available

Transport by road and rail

Not applicable

Transport by sea

UN-No. (IMDG) : 1987
Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP1, TP8, TP28
EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage) : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS
Stowage category (IMDG) : B

Air transport

UN-No. (IATA) : 1987
PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y341
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 353
PCA max net quantity (IATA) : 5L
CAO packing instructions (IATA) : 364
CAO max net quantity (IATA) : 60L
Special provisions (IATA) : A3, A180
ERG code (IATA) : 3L

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14.8. Hazchem or Emergency Action Code

Hazchemcode : Not applicable

SECTION 15: Regulatory information

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

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Any other relevant information

Revision date : 28/11/2018

Classification:

| | |
|---------------|------|
| Flam. Liq. 1 | H224 |
| Skin Irrit. 2 | H315 |
| Eye Irrit. 2A | H319 |

Full text of H-statements:

| | |
|---------------------|--|
| Acute Tox. 5 (Oral) | Acute toxicity (oral), Category 5 |
| Eye Irrit. 2A | Serious eye damage/eye irritation, Category 2A |
| Flam. Liq. 1 | Flammable liquids, Category 1 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Flam. Liq. 3 | Flammable liquids, Category 3 |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1A |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| H224 | Extremely flammable liquid and vapour |
| H225 | Highly flammable liquid and vapour |
| H226 | Flammable liquid and vapour |
| H303 | May be harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |

SDS Australia Leica

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product