1 Identification

- **Product identifier**
- **Trade name:** FAME Mix - 36 Component (1 x 1mL)
- **Part number:** 5191-4276
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use

- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
  Agilent Technologies, Inc.
  5301 Stevens Creek Blvd.
  Santa Clara, CA  95051  USA

- **Information department:**
  Telephone: 800-227-9770
  e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS08 Health hazard
  - Carec. 2  H351 Suspected of causing cancer.
  - GHS07
  - Acute Tox. 4  H302 Harmful if swallowed.
  - Skin Irrit. 2  H315 Causes skin irritation.
  - Eye Irrit. 2A  H319 Causes serious eye irritation.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**
  - GHS07  GHS08

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  - dichloromethane

- **Hazard statements**
  - Harmful if swallowed.
  - Causes skin irritation.
  - Causes serious eye irritation.
  - Suspected of causing cancer.

- **Precautionary statements**
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.

(Contd. on page 2)
Trade name: FAME Mix - 36 Component (1 x 1mL)

Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
If on skin: Wash with plenty of water.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).
Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

- NFPA ratings (scale 0 - 4)
  - Health = 2
  - Fire = 0
  - Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  - Health = 2
  - Fire = 0
  - Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:
  - 75-09-2 dichloromethane 99.26%

4 First-aid measures

- Description of first aid measures
- General information:
  - Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  - After inhalation: In case of unconsciousness place patient stably in side position for transportation.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact:
    - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing: Immediately call a doctor.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed: No further relevant information available.
Trade name: FAME Mix - 36 Component (1 x 1mL)

- Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
- Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.
- Protective Action Criteria for Chemicals
  PAC-1: 75-09-2 dichloromethane 200 ppm
  PAC-2: 75-09-2 dichloromethane 560 ppm
  PAC-3: 75-09-2 dichloromethane 6,900 ppm

7 Handling and storage

- Handling:
- Precautions for safe handling No special precautions are necessary if used correctly.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s) No further relevant information available.

* 8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
Control parameters

Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL</th>
<th>Short-term value: 125 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2 dichloromethane</td>
<td>Long-term value: 25 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>REL</td>
<td>See Pocket Guide App. A</td>
</tr>
<tr>
<td></td>
<td>TLV</td>
<td>Long-term value: 174 mg/m³, 50 ppm</td>
</tr>
</tbody>
</table>

Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>Component</th>
<th>BEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2 dichloromethane</td>
<td>0.3 mg/L</td>
</tr>
</tbody>
</table>

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Breathing equipment:
When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.

Protection of hands:
Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

Material of gloves
For normal use: nitrile rubber, 11-13 mil thickness
For direct contact with the chemical: butyl rubber, 12-15 mil thickness

Penetration time of glove material
For normal use: nitrile rubber: 1 hour
For direct contact with the chemical: butyl rubber: >4 hours

Eye protection:
Safety glasses

Tightly sealed goggles
### 9 Physical and chemical properties

#### Information on basic physical and chemical properties

- **General Information**
  - **Appearance:** Fluid
  - **Form:** Fluid
  - **Color:** Colorless
  - **Odor:** Like chlorine
  - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.

- **Change in condition**
  - **Melting point/Melting range:** -95.1 °C (-139.2 °F)
  - **Boiling point/Boiling range:** 40 °C (104 °F)

- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 605 °C (1,121 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - **Lower:** 13 Vol %
  - **Upper:** 22 Vol %

- **Vapor pressure at 20 °C (68 °F):** 360 hPa (270 mm Hg)
- **Density at 20 °C (68 °F):** 1.3 g/cm³ (10.8485 lbs/gal)
- **Relative density**
- **Vapor density**
- **Evaporation rate**

- **Solubility in / Miscibility with**
  - **Water at 20 °C (68 °F):** 20 g/l

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - **Dynamic at 20 °C (68 °F):** 0.43 mPas
  - **Kinematic:** Not determined.

- **Solvent content:**
  - **Organic solvents:** 99.3 %
  - **VOC content:** 0.00 %
  - **Solids content:** 0.2 %

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - LD/LC50 values that are relevant for classification:
      
      |                  | Oral LD50 | Dermal LD50 | Inhalative LC50/4 h |
      |------------------|-----------|-------------|--------------------|
      | ATE (Acute Toxicity Estimate) | 1,612 mg/kg (rat) | >2,015 mg/kg (rat) | 88.7 mg/L (rat) |

    75-09-2 dichloromethane
    
    |                  | Oral LD50 | Dermal LD50 | Inhalative LC50/4 h |
    |------------------|-----------|-------------|--------------------|
    |                  | 1,600 mg/kg (rat) | >2,000 mg/kg (rat) | 88 mg/L (rat) |

- Primary irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: Irritating effect.
  - Sensitization: No sensitizing effects known.

- Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
  Harmful
  Irritant

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    75-09-2 dichloromethane 2A
  - NTP (National Toxicology Program)
    75-09-2 dichloromethane R
  - OSHA-Ca (Occupational Safety & Health Administration)
    75-09-2 dichloromethane

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
  - Additional ecological information:
  - General notes:
    Water hazard class 2 (Self-assessment): hazardous for water
Trade name: FAME Mix - 36 Component (1 x 1mL)

Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, IMDG, IATA UN1593
- UN proper shipping name
  - DOT Dichloromethane
  - IMDG, IATA DICHLOROMETHANE
- Transport hazard class(es)
  - DOT
    - Class 6.1 Toxic substances
    - Label 6.1
- IMDG, IATA
  - Class 6.1 Toxic substances
  - Label 6.1
- Packing group
  - DOT, IMDG, IATA III
- Environmental hazards: Not applicable.
- Special precautions for user Warning: Toxic substances
  - Danger code (Kemler): 60
  - EMS Number: F-A,S-A
  - Segregation groups Liquid halogenated hydrocarbons
Trade name: FAME Mix - 36 Component (1 x 1mL)

- **Stowage Category**: A
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**: Not applicable.
- **Transport/Additional information:**
  - **DOT Quantity limitations**: On passenger aircraft/rail: 60L. On cargo aircraft only: 220L
- **IMDG Limited quantities (LQ)**: 5L
  - **Excepted quantities (EQ)**: Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
- **UN "Model Regulation":** UN 1593 DICHLOROMETHANE, 6.1, III

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
  - **Section 355 (extremely hazardous substances):**
    - None of the ingredients is listed.
  - **Section 313 (Specific toxic chemical listings):**
    - 75-09-2 dichloromethane
  - **TSCA (Toxic Substances Control Act):**
    - 75-09-2 dichloromethane
    - 112-39-0 Methyl hexadecanoate
    - 106-70-7 methyl hexanoate
    - 111-11-5 methyl octanoate
    - 110-42-9 methyl decanoate
    - 111-82-0 methyl laurate
    - 124-10-7 methyl myristate
    - 623-42-7 methyl butyrate
    - 112-61-8 methyl stearate
    - 112-62-9 Methyl 9-octadecenoate
    - 1120-28-1 methyl icosanoate
    - 929-77-1 methyl docosanoate
    - 1731-92-6 methyl heptadecanoate
    - 1731-86-8 methyl undecanoate
    - 112-63-0 methyl linoleate
    - 7132-64-1 methyl pentadecanoate
    - 301-00-8 methyl (9Z,12Z,15Z)-9,12,15-octadecatrienoate
    - 1731-88-0 methyl tridecanoate
    - 1120-34-9 methyl (Z)-docos-13-enolate
    - 1937-62-8 methyl elaidate
Trade name: FAME Mix - 36 Component (1 x 1mL)

- **Proposition 65**
  - **Chemicals known to cause cancer:**
    - 75-09-2 dichloromethane
  - **Chemicals known to cause reproductive toxicity for females:**
    - None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for males:**
    - None of the ingredients is listed.
  - **Chemicals known to cause developmental toxicity:**
    - None of the ingredients is listed.

- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    - 75-09-2 dichloromethane L
  - **TLV (Threshold Limit Value established by ACGIH)**
    - 75-09-2 dichloromethane A3
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    - 75-09-2 dichloromethane

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**
  - GHS07
  - GHS08

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  - dichloromethane
- **Hazard statements**
  - Harmful if swallowed.
  - Causes skin irritation.
  - Causes serious eye irritation.
  - Suspected of causing cancer.

- **Precautionary statements**
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - If swallowed: Call a poison center/doctor if you feel unwell.
  - Rinse mouth.
  - If on skin: Wash with plenty of water.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  - Continue rinsing.
  - IF exposed or concerned: Get medical advice/attention.
  - Specific treatment (see on this label).
  - Take off contaminated clothing and wash it before reuse.
  - If skin irritation occurs: Get medical advice/attention.
  - If eye irritation persists: Get medical advice/attention.
  - Store locked up.
Trade name: FAME Mix - 36 Component (1 x 1mL)

Dispose of contents/container in accordance with local/regional/national/international regulations.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

Date of preparation / last revision 05/14/2018 / -

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
dOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LD50: Lethal dose, 50 percent
LC50: Lethal concentration, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Carc. 2: Carcinogenicity – Category 2

* Data compared to the previous version altered.