SECTION 1: Identification

Contact information

General

Fluidigm Corporation
2 Tower Place, Suite 2000
South San Francisco, CA 94080
Main (U.S.): +1 (650) 266-6000
E-mail: techsupport@fluidigm.com

Emergency telephone number

+ (650) 266-6100 (outside US)
+ (866) 358-4354 (toll free)

Product identifier

Control Line Fluid

Synonyms

89000020, 89000021, 100-4058; 100-4233; 100-8574, 101-2016, 101-2345, 101-2349, 101-6335, 101-9307, 101-9482.

Trade name

<table>
<thead>
<tr>
<th>89000020</th>
<th>48.48 Control Line Fluid</th>
<th>101-2016</th>
<th>Juno™ LP-192.24 Control Line Fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>89000021</td>
<td>96.96 Control Line Fluid</td>
<td>101-2345</td>
<td>LP - 48.48 Control Line Fluid</td>
</tr>
<tr>
<td>100-4058</td>
<td>M192.24 Control Line Fluid</td>
<td>101-2349</td>
<td>LP - 48.48 IFC 5 Pack with Accessories</td>
</tr>
<tr>
<td>100-4233</td>
<td>FR 48.48 Control Line Fluid</td>
<td>101-6335</td>
<td>Prefilled Syringes, Juno LP 48.48 &amp; LP 8.8.6 IFCs, 2 pack.</td>
</tr>
<tr>
<td>100-7131</td>
<td>Prefilled syringes for Juno192.24</td>
<td>101-9307</td>
<td>Kit, Control Line Fluid</td>
</tr>
<tr>
<td>100-8574</td>
<td>IFC, Juno™ 96.96 GT Control Line Fluid</td>
<td>101-9482</td>
<td>Prefilled Syringes, CLF-150</td>
</tr>
</tbody>
</table>

Chemical family

Mixture

Recommended uses and restrictions

For Research Use Only. Not for use in diagnostic procedures.

Note

This SDS is written to address potential worker health and safety issues associated with the handling of the formulated product/mixture. This SDS will be revisited if more data become available.

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

Not classified

Label elements

<table>
<thead>
<tr>
<th>GHS Hazard pictograms</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS Signal word</td>
<td>Not applicable</td>
</tr>
<tr>
<td>GHS Hazard statements</td>
<td>Not applicable</td>
</tr>
<tr>
<td>GHS Precautionary statements</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Other hazards

No data identified for the mixture. The following data describe the hazards of individual ingredients, where applicable.

Note

This mixture does not meet criteria for classification under GHS as implemented by Regulation EC No 1272/2008 (EU CLP), WHMIS 2015 (Health Canada), and Hazard Communication Standard No. 1910.1200 (US OSHA). Nevertheless, it should be handled with caution as it has not yet been fully tested.

SECTION 3: Composition/Information on ingredients
### Ingredient Table

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS number</th>
<th>EINECS/ELINCS#</th>
<th>Amount</th>
<th>GHS classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-hazardous reagents</td>
<td>N/A</td>
<td>N/A</td>
<td>≈ 100 %</td>
<td>Not classified</td>
</tr>
<tr>
<td>(Main constituent)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note**

The principal ingredient in this product/mixture is distilled water. Any remaining components are not hazardous and/or are present at amounts below reportable limits.

### SECTION 4: First-aid measures

#### Description of first aid measures

<table>
<thead>
<tr>
<th>Immediate medical attention and special treatment, if necessary</th>
<th>No. If exposed or concerned: get medical advice/attention.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Immediately move exposed subject to fresh air. If not breathing, give artificial respiration. If breathing is labored, administer oxygen. Immediately notify medical personnel and supervisor.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Wash exposed area with soap and water and remove contaminated clothing/shoes. If irritation occurs or persists, notify medical personnel and supervisor.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>If easy to do, remove contact lenses, if worn. Immediately flush eyes with copious quantities of water for at least 15 minutes. If irritation occurs or persists, notify medical personnel and supervisor.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>If swallowed, call a physician immediately. Do not induce vomiting unless directed by medical personnel. Do not give anything to drink unless directed by medical personnel. Never give anything by mouth to an unconscious person. Notify medical personnel and supervisor.</td>
</tr>
</tbody>
</table>

#### Most Important Symptoms/Effects

Medical conditions aggravated by exposure: None known or reported. Treat symptomatically and supportively.

#### Expected Symptoms/Effects, Acute and Delayed

See Sections 2 and 11

### SECTION 5: Fire-fighting measures

#### Suitable (and unsuitable) extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Use water spray (fog), foam, dry powder, or carbon dioxide, as appropriate for surrounding fire and materials.</th>
</tr>
</thead>
</table>

#### Specific hazards arising from the chemical

<table>
<thead>
<tr>
<th>Fire hazard</th>
<th>No information identified. As product is an aqueous-based solution it is not expected to be flammable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion hazard</td>
<td>No information identified. As product is an aqueous-based solution it is not expected to be explosive.</td>
</tr>
</tbody>
</table>

#### Special protective equipment and precautions for fire-fighters

<table>
<thead>
<tr>
<th>Firefighting instructions</th>
<th>In case of fire in the surroundings: use the appropriate extinguishing agent. Wear full protective clothing and an approved, positive pressure, self-contained breathing apparatus. Decontaminate all equipment after use.</th>
</tr>
</thead>
</table>

### SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

<table>
<thead>
<tr>
<th>General measures</th>
<th>Do not breathe vapors/mist/spray.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective equipment</td>
<td>If product is released or spilled, take proper precautions to minimize exposure by using appropriate personal protective equipment (see Section 8). Area should be adequately ventilated.</td>
</tr>
<tr>
<td>Emergency procedures</td>
<td>Do not breathe vapors/mist/spray.</td>
</tr>
<tr>
<td>Environmental precautions</td>
<td>Do not empty into drains. Avoid release to the environment.</td>
</tr>
</tbody>
</table>

#### Methods and material for containment and cleaning up

<table>
<thead>
<tr>
<th>Methods for cleaning up</th>
<th>DO NOT CAUSE MATERIAL TO BECOME AIRBORNE. For small spills, soak up material with absorbent, e.g., paper towels. For large spills, cordon off spill area and minimize the spreading of spilled material. Soak up material with absorbent. Collect spilled material, absorbent, and rinse water into suitable containers for proper disposal in accordance with applicable waste disposal regulations (see Section 13). Decontaminate the area twice with an appropriate solvent.</th>
</tr>
</thead>
</table>

#### Reference to other sections

See Sections 8 and 13 for more information.
SECTION 7: Handling and storage

### Precautions for safe handling
Follow recommendations for handling pharmaceutical agents (i.e., use of engineering controls and/or other personal protective equipment if needed). Avoid contact with eyes, skin and other mucous membranes. Wash thoroughly after handling. Do not breathe vapors/mist/spray.

### Conditions for safe storage, including any incompatibilities

#### Storage conditions
Store at room temperature, and away from incompatible material.

#### Specific end use(s)
No information identified.

SECTION 8: Exposure controls/personal protection

#### Note
Dispose of broken vials in a sharps container.

<table>
<thead>
<tr>
<th>Control parameters/Occupational Exposure Limits</th>
<th>Name</th>
<th>Issuer</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-hazardous reagents</td>
<td>No data available</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

#### Appropriate engineering controls
Selection and use of containment devices and personal protective equipment should be based on a risk assessment of exposure potential. Use local exhaust and/or enclosure at aerosol-generating points. Use specifically designed and engineered local exhaust ventilation (LEV) and/or enclosure at aerosol-generating points and for high aerosol-generating operations. Limited open handling allowable for low aerosol-generating operations. Emphasis is placed on closed material transfer through direct connections, dust control and containment using LEV, certified downflow booths, glove bags, process containment via intermediate bulk containers (IBCs) with split butterfly valves (SBVs) and/or isolator technology.

#### Respiratory protection
Choice of respiratory protection should be appropriate to the task and the level of existing engineering controls. For routine handling tasks, an approved and properly fitted air-purifying respirator with appropriate HEPA filters should provide ancillary protection based on the known or foreseeable limitations of existing engineering controls. Use a powered air-purifying respirator equipped with appropriate HEPA filters or combination filters or a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, when exposure levels are not known, or in any other circumstances where a lower level of respiratory protection may not provide adequate protection.

#### Hand protection
Wear nitrile or other impervious gloves if skin contact is possible. When the material is diluted in an organic solvent, wear gloves that provide protection against the solvent.

#### Eye protection
Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.

#### Skin and body protection
Wear disposable coveralls appropriate to the task, booties, and safety glasses with side shields. Ensure gloves are protective against solvents in use. Protective garments (coveralls, disposable coveralls, lab coats) are not to be worn in common areas (e.g., cafeterias) or out-of-doors. Employees must be trained in proper gowning and degowning practices.

#### Other protective measures
Wash hands in the event of contact with material, especially before eating, drinking or smoking. Protective equipment is not to be worn outside the work area (e.g., in common areas or out-of-doors).

#### Environmental exposure controls
Avoid release to the environment and operate within closed systems wherever practicable. Air and liquid emissions should be directed to appropriate pollution control devices. In case of spill, do not release to drains. Implement appropriate and effective emergency response procedures to prevent release or spread of contamination and to prevent inadvertent contact by personnel.

SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear, colorless.</td>
</tr>
<tr>
<td>Formula</td>
<td>Mixture (not applicable)</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>Mixture (not applicable)</td>
</tr>
<tr>
<td>Color</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Relative evaporation rate (butyl acetate=1)  No data available
Flammability (solid, gas)  No data available
Vapor pressure  No data available
Relative vapor density at 20 °C  No data available
Relative density  No data available
Solubility  Soluble in water; aqueous-based solution
Log Pow  No data available
Auto-ignition temperature  No data available
 Decomposition temperature  No data available
Viscosity, kinematic  No data available
Viscosity, dynamic  No data available
Explosion limits  No data available
 Explosive properties  No data available
Oxidizing properties  No data available

SECTION 10: Stability and reactivity
Reactivity  No data available.
Chemical stability  No data available.
Possibility of hazardous reactions  No data available.
Conditions to avoid  Keep away from incompatible materials.
Incompatible materials  No data available.
Hazardous decomposition products  No data available.

SECTION 11: Toxicological information
Note  No data on product formulation.
Likely routes of exposure  May be absorbed by inhalation, skin contact and ingestion.

Toxicological information
Acute toxicity
Component Type Dose
Non-hazardous reagents No data available No data available
Additional information No data available No data available
Serious eye damage/irritation No data available No data available
Skin corrosion/irritation No data available No data available
Sensitization No data available No data available
STOT-single exposure No data available No data available
STOT-repeated exposure No data available No data available
Reproductive toxicity No data available No data available
Developmental toxicity No data available No data available
Genotoxicity No data available No data available
Carcinogenicity No data available No data available
Aspiration hazard No data available No data available
Experience with humans See “Section 2 - Other Hazards”.

SECTION 12: Ecological information
Toxicity
Component Type Concentration
Non-hazardous reagents No data available No data available
Persistence and degradability: No data available.
Bioaccumulative potential: No data available.
Mobility in soil: No data available.
Results of PBT assessment: No data available.
Other adverse effects: No data available.
Note: The environmental characteristics of this product/mixture have not been fully investigated. Releases to the environment should be avoided.

SECTION 13: Disposal considerations

Waste treatment methods: Used product should be disposed of according to local, state, and federal regulations. All wastes containing the material should be properly labeled. Dispose of wastes in accordance to prescribed federal, state, and local guidelines, e.g., appropriately permitted chemical waste incinerator. Rinse waters resulting from spill cleanups should be discharged in an environmentally safe manner, e.g., appropriately permitted municipal or on-site wastewater treatment facility.

SECTION 14: Transport information

Transport: Based on the available data, this product/mixture is not regulated as a hazardous material/dangerous good under EU ADR/RID, US DOT, Canada TDG, IATA, or IMDG.
UN number: None assigned.
UN proper shipping name: None assigned.
Transport hazard class(es) (DOT): None assigned.
Packing group: None assigned.
Marine pollutant: Based on the available data, this product/mixture is not regulated as an environmental hazard or a marine pollutant.
Special transport precautions: Avoid release to the environment.
Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture: This SDS generally complies with the requirements listed under current guidelines in the US, EU and Canada. Consult your local or regional authorities for more information.
Chemical safety assessment: No chemical safety assessment has been carried out.
TSCA: All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:
SARA Section 313 - Emission Reporting: This substance or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.
California Proposition 65: California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.
Additional information: This SDS generally complies with the requirements listed under current guidelines in the US, EU and Canada. Consult your local or regional authorities for more information.

SECTION 16: Other information

Full text of H phrases and GHS classification: Not applicable.
Data sources: Information from published literature and internal company data.
Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygienists; ADR/RID - European Agreement Concerning the International Carriage of Dangerous Goods by Road/Rail; AIHA - American Industrial Hygiene Association; CAS# - Chemical Abstract Services Number; CLP - Classification, Labelling, and Packaging of Substances and Mixtures; DNEL - Derived No Effect Level; DOT - Department of Transportation; EINECS - European Inventory of New and Existing Chemical Substances; ELINCS - European List of Notified Chemical Substances; EU - European Union; GHS - Globally Harmonized System of Classification and Labeling of Chemicals; IARC - International Agency for Research on Cancer; IDLH - Immediately Dangerous to Life or Health; IATA - International Air Transport Association; IMDG - International Maritime Dangerous Goods; LOEL - Lowest Observed Effect Level; LOAEL - Lowest Observed Adverse Effect Level; NIOSH - The National Institute for Occupational Safety and Health; NOEL - No Observed Effect Level; NOAEL - No Observed Adverse Effect Level; NTP - National Toxicology Program; OEL - Occupational Exposure Limit; OSHA - Occupational Safety and Health Administration; PBT - Persistent, Bioaccumulative, and Toxic; PNEC - Predicted No Effect Concentration; SARA - Superfund Amendments and Reauthorization Act; STOT - Specific Target Organ Toxicity; STEL - Short Term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Issue date
August 2021

Current revision
08

Indication of changes
Revision 08: CHG-005041; Converted the 3 regional SDSs (US/Canada, EU, Asia) to a single GHS compliant SDS.
Revision [07]: CHG-000322; Added 101-9307 to Section 1
Revision F: (SSF) ECN-3574 - Released 30 July 2019; Added PN 101-9482, put manufacturer's part number in numerical order in Section 1, Updated "Other Information" Section
Revision E: (SSF) ECN-3432 - May 22, 2019; Added PN 101-6335
Revision D: (SSF) ECN-2777 - 21 December 2017; Corrected PN 100-8574 from 101-8574 in Section 1
Revision C: (SSF) ECN-2771 – 20 December 2017; Added PN's 101-2345, 100-8574, 100-7131, 101-6335 & 101-2016
Revision B: (SSF) ECN-2410 03 October 2017; Periodic review & rebranded
Revision A: (SSF) ECN-1180 – 13 November 2014; New SDS

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