

SAFETY DATA SHEET

Product Identifier: C1™ Single-Cell mRNA Seq HT Bundle v2 – 5 IFCs
Catalog ID number: Cat# 101-3474, 101-3473, 101-0060, 101-0061, 101-0062, 101-1106

SDS ID: 101-5926

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

Contact information

General	Fluidigm Corporation 7000 Shoreline Court Suite 100, 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	C1™ Single-Cell mRNA Seq HT Bundle v2 – 5 IFCs
Synonyms	None identified
Trade names	None identified
Chemical family	Mixture
Relevant identified uses of the substance or mixture and uses advised against	<i>For Research Use Only. Not for use in diagnostic procedures.</i>

Note This SDS is written to address potential health and safety issues associated with the handling of this reagent kit. For occupational health and safety issues associated with manufacture of this kit, please consult the SDSs of the individual ingredients.

SECTION 2 - HAZARDS IDENTIFICATION

This product contains fourteen (14) parts. The following provides the hazard classification for each part.

Part 1: Valve Fluid v2 (Part #: 101-2132)

Classification of the substance or mixture

Globally Harmonized System [GHS]	Not classified
AU Hazard Classification (NOHSC)	Hazardous substance. Non-hazardous goods.

Label elements

CLP/GHS hazard pictogram	None required
CLP/GHS signal word	None required
CLP/GHS hazard statements	None required
CLP/GHS precautionary statements	None required

Other hazards Part/mixture not yet fully tested.

Note This mixture is not classified as hazardous under GHS as implemented by Regulation EC No 1272/2008 (EU CLP), WHMIS 2015 (Health Canada), Hazard Communication Standard No. 1910.1200 (US OSHA), and National Occupational Health and Safety Commission (Australia). The pharmacological, toxicological and ecological properties of this part/mixture have not been fully characterized.

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Part description and number	GHS Hazard Classification
Part 3: Suspension RGT (Part #: 100-5315)	None required.
Part 4: Cell Rinsing Reagent (Part #: 100-8506)	None required.
Part 5: Stability Solution (Part #: 101-0552)	None required.
Part 6: Actuation Fluid (Part #: 101-3334)	None required.
Part 7: C1™ Harvest RGT (Part #: 100-6248)	None required.
Part 8: Loading RGT (Part #: 100-5312)	None required.
Part 9: Preloading Reagent (Part #: 101-1125)	None required.
Part 10: DNA Dilution Reagent (Part #: 100-5361)	None required.
Part 11: Enrichment Primer (Part #: 101-0058)	None required.
Part 12: Preamp Primer (Part #: 101-0054)	None required.
Part 13: Cell Barcode Plate (Part #: 101-0061)	None required.
Part 14: Reverse Transcription Primer (Part #: 101-0056)	None required.

Other hazards None identified.

Note Parts 3-14 are not classified as hazardous according to Regulation EC No 1272/2008 (EU CLP), WHMIS 2015 (Health Canada), Hazard Communication Standard No. 1910.1200 (US OSHA), and National Occupational Health and Safety Commission (Australia). The pharmacological, toxicological and ecological properties of this part/mixture have not been fully characterized.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Part 1: Valve Fluid v2 (Part #: 101-2132)

<u>Ingredient</u>	<u>CAS #</u>	<u>EINECS/ ELINCS#</u>	<u>Amount</u>	<u>GHS Classification</u>
Glycerol	56-81-5	200-289-5	5-15%	Not classified

Note The ingredients listed above are not considered hazardous. Glycerol is included because it has OELs. The remaining components are present at amounts below reportable limits. See Section 16 for full text of GHS classifications.

Note The remaining components are non-hazardous and/or present at amounts below reportable limits. See Section 16 for full text of GHS classifications.

Parts 3-14

<u>Tube Description</u>	<u>CAS #</u>	<u>EINECS/ ELINCS#</u>	<u>Amount</u>	<u>GHS Classification</u>
Part 3: Suspension RGT (Part #: 100-5315)	N/A (mixture)	N/A	~100%	Not classified
Part 4: Cell Rinsing Reagent (Part #: 100-8506)	N/A (mixture)	N/A	~100%	Not classified
Part 5: Stability Solution (Part #: 101-0552)	N/A (mixture)	N/A	~100%	Not classified
Part 6: Actuation Fluid (Part #: 101-3334)	N/A (mixture)	N/A	~100%	Not classified
Part 7: C1™ Harvest RGT (Part #: 100-6248)	N/A (mixture)	N/A	~100%	Not classified
Part 8: Loading RGT (Part #: 100-5312)	N/A (mixture)	N/A	~100%	Not classified
Part 9: Preloading Reagent (Part #: 101-1125)	N/A (mixture)	N/A	~100%	Not classified
Part 10: DNA Dilution Reagent (Part #: 100-5361)	N/A (mixture)	N/A	~100%	Not classified
Part 11: Enrichment Primer (Part #: 101-0058)	N/A	N/A	~100%	Not classified
Part 12: Preamp Primer (Part #: 101-0054)	N/A	N/A	~100%	Not classified
Part 13: Cell Barcode Plate (Part #: 101-0061)	N/A	N/A	~100%	Not classified

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Part 14: Reverse Transcription Primer (Part #: N/A N/A ~100% Not classified
 101-0056)

Note The components within Parts 3-14 are non-hazardous and/or present at amounts below reportable limits. DNA oligonucleotides are not classified but may cause skin and/or eye irritation.

SECTION 4 - FIRST AID MEASURES

Description of first aid measures

Immediate Medical Attention Needed	Yes
Eye Contact	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.
Skin Contact	Wash exposed area with soap and water and remove contaminated clothing/shoes. If irritation occurs or persists, notify medical personnel and supervisor.
Inhalation	In case of accident by inhalation, remove casualty to fresh air and keep at rest. If signs/symptoms occur, get medical attention.
Ingestion	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. If signs/symptoms occur, get medical attention.
Protection of first aid responders	See Section 8 for Exposure Controls/Personal Protection recommendations.
Most important symptoms and effects, both acute and delayed	See Sections 2 and 11.
Indication of immediate medical attention and special treatment needed, if necessary	Medical conditions aggravated by exposure: None known or reported. Treat symptomatically and supportively.

SECTION 5 - FIREFIGHTING MEASURES

Extinguishing media	Use water spray (fog), foam, dry powder, or carbon dioxide, as appropriate for surrounding fire and materials.
Specific hazards arising from the substance or mixture	No information identified. May emit carbon monoxide and carbon dioxide.
Flammability/Explosivity	No information identified.
Advice for firefighters	Wear full protective clothing and a self-contained breathing apparatus with a full facepiece operated in the pressure demand or other positive pressure mode. Decontaminate all equipment after use.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	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. Do not breathe mist/vapors/spray.
Environmental precautions	Do not empty into drains. Avoid release to the environment.

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Methods and material for containment and cleaning up If vials are crushed or broken, 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.

Reference to other sections See Sections 8 and 13 for more information.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling No special handling requirements for the normal use of this product.

Conditions for safe storage including any incompatibilities Store at 2-8 °C in a well-ventilated area; keep container upright and tightly closed.

- 101-3474, Rgt Kit, C1 mRNA Seq HT Reagent Kit v2 - Module 1 (+4 C)
- 101-0060, Rgt Kit, C1 mRNA Seq HT Reagent Kit - Module 2 (-20 C)
- 101-0061, Rgt Kit, C1 mRNA Seq HT Reagent Kit - Module 3 (-20 C)
- 101-0062, Rgt Kit, C1 mRNA Seq HT Reagent Kit - Module 4 (-80 C)
- 101-1106, Rgt Kit, C1 mRNA Seq HT Reagent Kit - Module 5 (-20 C)

Specific end use(s) No information identified.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Note Dispose of broken vials/syringes in a sharps container.

Control Parameters/Occupational Exposure Limit Values

<u>Compound</u>	<u>Issuer</u>	<u>Type</u>	<u>OEL</u>
Glycerol	ACGIH, Belgium, Netherlands, Portugal, United Kingdom, Mexico, Singapore	TWA-8 HR	10 mg/m ³ (listed as glycerin mist)
	Estonia, France, Greece, Ireland, Poland, Spain	TWA-8 HR	10 mg/m ³
	Finland	TWA-8 HR	20 mg/m ³
	Switzerland	TWA-8 HR	50 mg/m ³
	Switzerland	STEL	100 mg/m ³
	United Kingdom	STEL	30 mg/m ³

Exposure/Engineering controls None required for normal handling of packaged product. If vials are crushed or broken: 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/mist-generating points. Emphasis is to be placed on closed material transfer systems and process containment, with limited open handling. High-energy operations should be done within an approved emission control or containment system.

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Respiratory protection	None required for normal handling of packaged product. If vials are crushed or broken: Choice of respiratory protection should be appropriate to the task and the level of existing engineering controls. For routine powder handling tasks, an approved and properly fitted air purifying respirator should provide ancillary protection based on the known or foreseeable limitations of existing engineering controls. Use a powered air-purifying respirator equipped with 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	None required for normal handling of packaged product. If vials are crushed or broken: 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.
Skin protection	Wear appropriate gloves, lab coat, or other protective overgarment if skin contact is likely. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use.
Eye/face 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.
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.
Other protective measures	Wash hands in the event of contact with this substance, 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).

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquids (supplied as individually packaged reagents)
Color	Clear
Odor	No information identified.
Odor threshold	No information identified.
pH	No information identified.
Melting point/freezing point	No information identified.
Initial boiling point and boiling range	No information identified.
Flash point	No information identified.
Evaporation rate	No information identified.
Flammability (solid, gas)	No information identified.
Upper/lower flammability or explosive limits	No information identified.
Vapor pressure	No information identified
Vapor density	No information identified.

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Relative density	No information identified.
Water solubility	No information identified.
Solvent solubility	No information identified.
Partition coefficient (n-octanol/water)	No information identified.
Auto-ignition temperature	No information identified.
Decomposition temperature	No information identified.
Viscosity	No information identified.
Explosive properties	No information identified.
Oxidizing properties	No information identified.

Other information

Molecular weight	Not applicable (Mixture)
Molecular formula	Not applicable (Mixture)

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	No information identified.
Chemical stability	Stable when stored as recommended.
Possibility of hazardous reactions	No information identified.
Conditions to avoid	Keep away from strong oxidizing agents.
Incompatible materials	No information identified.
Hazardous decomposition products	No information identified.

SECTION 11 - TOXICOLOGICAL INFORMATION

Note No data were identified for the product/mixture. The following information is for the individual ingredients.

Information on toxicological effects

Route of entry May be absorbed by inhalation, skin contact and ingestion.

Acute toxicity

<u>Compound</u>	<u>Type</u>	<u>Route</u>	<u>Species</u>	<u>Dose</u>
Glycerol	LD50	Oral	Rat	>10000 mg/kg
	LD50	Oral	Mouse	≥4090 mg/kg
	LD50	Dermal	Rat	>21900 mg/kg
	LD50	Inhalation	Rat	>570 mg/m ³ /1h
	LD50	Dermal	Mouse	>18700 mg/kg
	LD50	Dermal	Rabbit	>10000 mg/kg

Irritation/Corrosion No studies identified.

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Sensitization	No studies identified.
STOT-single exposure	No studies identified.
STOT-repeated exposure/Repeat-dose toxicity	No studies identified.
Reproductive toxicity	No studies identified.
Developmental toxicity	No studies identified.
Genotoxicity	No studies identified.
Carcinogenicity	No studies identified. This mixture is not listed by NTP, IARC, ACGIH or OSHA as a carcinogen.
Aspiration hazard	No data available.
Human health data	See Section 2 - "Other hazards"

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity

<u>Compound</u>	<u>Type</u>	<u>Species</u>	<u>Concentration</u>
Glycerol	--	--	--

Persistence and Degradability No data identified.

Bioaccumulative potential No data identified.

Mobility in soil No data identified.

Results of PBT and vPvB assessment Not performed.

Other adverse effects No data identified.

Note The environmental characteristics of this product/mixture have not been fully investigated. The above data are for the active ingredient and/or any other ingredient(s) where applicable. Releases to the environment should be avoided.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods Dispose of wastes in accordance to prescribed federal, state, and local guidelines, e.g., appropriately permitted chemical waste incinerator. Do not send down the drain or flush down the toilet. All wastes containing the material should be properly labeled. 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 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 classes and packing group None assigned

Environmental hazards Based on the available data, this mixture is not regulated as an environmental hazard or a marine pollutant.

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Special precautions for users Mixture not fully tested - avoid exposure.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Hazardchem Code/HIN None assigned.

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 Canada, and Australia. Consult your local/regional authorities for more information.
Chemical safety assessment	Not conducted.
TSCA status	Not listed
SARA section 313	Not listed.
California proposition 65	Not listed.
Component Analysis – State	Not listed.
Component Analysis – Chemical Inventory	Not listed.
Additional information	No other information identified.

SECTION 16 - OTHER INFORMATION

NFPA Ratings	Glycerol	Health: 0	Fire: 0	Reactivity: 0
Full text of H phrases and GHS classifications	RS1 – Respiratory sensitizer Category 1. H334 – May cause allergic or asthmatic symptoms or breathing difficulty if inhaled. SS1 – Skin sensitizer Category 1. H317 – May cause an allergic reaction.			
Sources of data	Information from published literature and internal company data.			
Abbreviations	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; 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; WHMIS - Workplace Hazardous Materials Information System			
Abbreviations cont'd				



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Issue Date 13 December 2016

Revisions This is the first version of this SDS.

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