Conforms to US OSHA Hazard Communication 29CFR1910.1200

SAFETY DATA SHEET

Agilent Technologies

Kit CE-ESI-MS AJS compatible, Part Number G1607-64001

Section 1. Identification

1.1 Product identifier

Product name : Kit CE-ESI-MS AJS compatible, Part Number G1607-64001

Part No. (Chemical Kit) : G1607-64001

Part No. : CE-MS Test Sample 5063-6590
CE-MS Run Buffer 8500-4410

Validation date : 3/23/2016

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

Material uses : Analytical chemistry.
CE-MS Test Sample 1 mg
CE-MS Run Buffer 5 ml

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status : CE-MS Test Sample — This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
CE-MS Run Buffer — This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

CE-MS Test Sample

Comb. Dusts	COMBUSTIBLE DUSTS

CE-MS Run Buffer

H226	FLAMMABLE LIQUIDS - Category 3
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H315	SKIN IRRITATION - Category 2
H319	EYE IRRITATION - Category 2A
H360	TOXIC TO REPRODUCTION (Fertility) - Category 1B
H360	TOXIC TO REPRODUCTION (Unborn child) - Category 1B
H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (central nervous system (CNS)) - Category 1
H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

2.2 GHS label elements

Section 2. Hazards identification

Hazard pictograms :

Signal word :

☑ CE-MS Test Sample	Warning
CE-MS Run Buffer	Danger

Hazard statements :

☑ CE-MS Test Sample	No Code(s) - May form combustible dust concentrations in air.
CE-MS Run Buffer	GHS SYMBOL - **Flame** - **Exclamation mark** - **Health hazard** - H226 - Flammable liquid and vapor. H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled. H319 - Causes serious eye irritation. H315 - Causes skin irritation. H360 - May damage fertility or the unborn child. H370 - Causes damage to organs. (central nervous system (CNS)) H335 - May cause respiratory irritation.

Precautionary statements

Prevention :

☑ CE-MS Test Sample CE-MS Run Buffer	Not applicable. P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P233 - Keep container tightly closed. P271 - Use only outdoors or in a well-ventilated area. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling.

Response :

☑ CE-MS Test Sample CE-MS Run Buffer	Not applicable. P307 + P311 - IF exposed: Call a POISON CENTER or physician. P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell.

Section 2. Hazards identification

Take off contaminated clothing and wash it before reuse.
P332 + P313 - If skin irritation occurs: Get medical attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.

Storage : CE-MS Test Sample
Not applicable.
P405 - Store locked up.
P403 - Store in a well-ventilated place.
P235 - Keep cool.

CE-MS Run Buffer
Not applicable.
P405 - Store locked up.
P403 - Store in a well-ventilated place.
P235 - Keep cool.

Disposal : CE-MS Test Sample
Not applicable.
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

CE-MS Run Buffer
Not applicable.
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : CE-MS Test Sample
Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.

CE-MS Run Buffer
None known.

2.3 Other hazards

Hazards not otherwise classified : CE-MS Test Sample
Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

CE-MS Run Buffer
None known.

Section 3. Composition/information on ingredients

Substance/mixture : CE-MS Test Sample
Substance

CE-MS Run Buffer
Mixture

Ingredient name	%	CAS number
CE-MS Test Sample		
Quinine, sulfate (2:1), dihydrate	100	6119-70-6
CE-MS Run Buffer		
Methanol	≥10 - ≤25	67-56-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact : CE-MS Test Sample
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

CE-MS Run Buffer
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

Section 4. First aid measures

			Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician.
Inhalation	:	CE-MS Test Sample	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		CE-MS Run Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	CE-MS Test Sample	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		CE-MS Run Buffer	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	CE-MS Test Sample	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless

Section 4. First aid measures

		directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	CE-MS Run Buffer	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	CE-MS Test Sample	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
		CE-MS Run Buffer	Causes serious eye irritation.
Inhalation	:	CE-MS Test Sample	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
		CE-MS Run Buffer	Harmful if inhaled. May cause respiratory irritation.
Skin contact	:	CE-MS Test Sample	No known significant effects or critical hazards.
		CE-MS Run Buffer	Harmful in contact with skin. Causes skin irritation.
Ingestion	:	CE-MS Test Sample	No known significant effects or critical hazards.
		CE-MS Run Buffer	Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact	:	CE-MS Test Sample	Adverse symptoms may include the following: irritation redness
		CE-MS Run Buffer	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	:	CE-MS Test Sample	Adverse symptoms may include the following: respiratory tract irritation coughing
		CE-MS Run Buffer	Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths

Section 4. First aid measures

skeletal malformations

Skin contact	: CE-MS Test Sample	No specific data.
	CE-MS Run Buffer	Adverse symptoms may include the following: irritation redness reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	: CE-MS Test Sample	No specific data.
	CE-MS Run Buffer	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: CE-MS Test Sample	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	CE-MS Run Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: CE-MS Test Sample	No specific treatment.
	CE-MS Run Buffer	No specific treatment.
Protection of first-aiders	: CE-MS Test Sample	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	CE-MS Run Buffer	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: CE-MS Test Sample	Use dry chemical powder.
	CE-MS Run Buffer	Use dry chemical, CO_2, water spray (fog) or foam.
Unsuitable extinguishing media	: CE-MS Test Sample	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
	CE-MS Run Buffer	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Section 5. Fire-fighting measures

Specific hazards arising from the chemical	:	CE-MS Test Sample	May form explosible dust-air mixture if dispersed. Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
		CE-MS Run Buffer	
Hazardous thermal decomposition products	:	CE-MS Test Sample	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
		CE-MS Run Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides Formaldehyde.

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	CE-MS Test Sample	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
		CE-MS Run Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	:	CE-MS Test Sample	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		CE-MS Run Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	CE-MS Test Sample	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
		CE-MS Run Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not

Section 6. Accidental release measures

touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : CE-MS Test Sample

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

CE-MS Run Buffer

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : CE-MS Test Sample

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

CE-MS Run Buffer

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : CE-MS Test Sample

Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

CE-MS Run Buffer

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures : CE-MS Test Sample

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary

Section 7. Handling and storage

		measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
	CE-MS Run Buffer	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene :	CE-MS Test Sample	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	CE-MS Run Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
7.2 Conditions for safe storage, including any incompatibilities :	CE-MS Test Sample	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
	CE-MS Run Buffer	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from

Section 7. Handling and storage

incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations : CE-MS Test Sample — Industrial applications, Professional applications.
CE-MS Run Buffer — Industrial applications, Professional applications.

Industrial sector specific solutions : CE-MS Test Sample — Not applicable.
CE-MS Run Buffer — Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
CE-MS Run Buffer Methanol	**ACGIH TLV (United States, 3/2015).** **Absorbed through skin.** TWA: 200 ppm 8 hours. TWA: 262 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TWA: 200 ppm 10 hours. TWA: 260 mg/m³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours.

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	CE-MS Test Sample	Solid. [Powder. or Crystals.]
	CE-MS Run Buffer	Liquid.
Color	CE-MS Test Sample	White.
	CE-MS Run Buffer	Colorless aqueous solution
Odor	CE-MS Test Sample	Odorless.
	CE-MS Run Buffer	Alcohol-like. [Slight]
Odor threshold	CE-MS Test Sample	Not available.
	CE-MS Run Buffer	Not available.
pH	CE-MS Test Sample	6.2 [Conc. (% w/w): 100%]
	CE-MS Run Buffer	Not available.
Melting point	CE-MS Test Sample	205°C (401°F)
	CE-MS Run Buffer	Not available.
Boiling point	CE-MS Test Sample	Not available.
	CE-MS Run Buffer	Not available.
Flash point	CE-MS Test Sample	Not available.
	CE-MS Run Buffer	Open cup: 43°C (109.4°F)
Evaporation rate	CE-MS Test Sample	Not available.
	CE-MS Run Buffer	Not available.

Section 9. Physical and chemical properties

Flammability (solid, gas)	: CE-MS Test Sample	Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
	CE-MS Run Buffer	Not applicable.
Lower and upper explosive (flammable) limits	: CE-MS Test Sample	Not available.
	CE-MS Run Buffer	Not available.
Vapor pressure	: CE-MS Test Sample	Not available.
	CE-MS Run Buffer	Not available.
Vapor density	: CE-MS Test Sample	Not available.
	CE-MS Run Buffer	Not available.
Relative density	: CE-MS Test Sample	0.8
	CE-MS Run Buffer	Not available.
Solubility	: CE-MS Test Sample	Soluble in the following materials: cold water and hot water.
	CE-MS Run Buffer	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: CE-MS Test Sample	0.53
	CE-MS Run Buffer	Not available.
Auto-ignition temperature	: CE-MS Test Sample	Not available.
	CE-MS Run Buffer	Not available.
Decomposition temperature	: CE-MS Test Sample	Not available.
	CE-MS Run Buffer	Not available.
Viscosity	: CE-MS Test Sample	Not available.
	CE-MS Run Buffer	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: CE-MS Test Sample	No specific test data related to reactivity available for this product or its ingredients.
	CE-MS Run Buffer	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: CE-MS Test Sample	The product is stable.
	CE-MS Run Buffer	The product is stable.
10.3 Possibility of hazardous reactions	: CE-MS Test Sample	Under normal conditions of storage and use, hazardous reactions will not occur.
	CE-MS Run Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: CE-MS Test Sample	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
	CE-MS Run Buffer	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Section 10. Stability and reactivity

10.5 Incompatible materials :

CE-MS Test Sample	Reactive or incompatible with the following materials: oxidizing materials
CE-MS Run Buffer	Reactive or incompatible with the following materials: oxidizing materials

10.6 Hazardous decomposition products :

CE-MS Test Sample	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
CE-MS Run Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
CE-MS Run Buffer				
Methanol	LC50 Inhalation Vapor	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
CE-MS Run Buffer					
Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
CE-MS Run Buffer			
Methanol	Category 1	Not determined	central nervous system (CNS)
	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : CE-MS Test Sample — Not available.

CE-MS Run Buffer — Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : CE-MS Test Sample — Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

CE-MS Run Buffer — Causes serious eye irritation.

Inhalation : CE-MS Test Sample — Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

CE-MS Run Buffer — Harmful if inhaled. May cause respiratory irritation.

Skin contact : CE-MS Test Sample — No known significant effects or critical hazards.

CE-MS Run Buffer — Harmful in contact with skin. Causes skin irritation.

Ingestion : CE-MS Test Sample — No known significant effects or critical hazards.

CE-MS Run Buffer — Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : CE-MS Test Sample — Adverse symptoms may include the following:
irritation
redness

CE-MS Run Buffer — Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : CE-MS Test Sample — Adverse symptoms may include the following:
respiratory tract irritation
coughing

CE-MS Run Buffer — Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : CE-MS Test Sample — No specific data.

CE-MS Run Buffer — Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 11. Toxicological information

Ingestion :
CE-MS Test Sample — No specific data.
CE-MS Run Buffer — Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General :
CE-MS Test Sample — Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
CE-MS Run Buffer — No known significant effects or critical hazards.

Carcinogenicity :
CE-MS Test Sample — No known significant effects or critical hazards.
CE-MS Run Buffer — No known significant effects or critical hazards.

Mutagenicity :
CE-MS Test Sample — No known significant effects or critical hazards.
CE-MS Run Buffer — No known significant effects or critical hazards.

Teratogenicity :
CE-MS Test Sample — No known significant effects or critical hazards.
CE-MS Run Buffer — May damage the unborn child.

Developmental effects :
CE-MS Test Sample — No known significant effects or critical hazards.
CE-MS Run Buffer — No known significant effects or critical hazards.

Fertility effects :
CE-MS Test Sample — No known significant effects or critical hazards.
CE-MS Run Buffer — May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
CE-MS Run Buffer	
Oral	481.5 mg/kg
Dermal	1500 mg/kg
Inhalation (vapors)	15 mg/l

Other information :
CE-MS Test Sample — Adverse symptoms may include the following: Eye irritation. Skin irritation. respiratory tract irritation. (similar material)
CE-MS Run Buffer — Adverse symptoms may include the following: blurred or double vision, Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage.

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
CE-MS Run Buffer			
Methanol	Acute EC50 24500000 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - Danio rerio - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - Ulva pertusa	96 hours

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
CE-MS Run Buffer			
Methanol	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
CE-MS Test Sample			
Quinine, sulfate (2:1), dihydrate	0.53	-	low
CE-MS Run Buffer			
Methanol	-0.77	<10	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

12.5 Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Section 13. Disposal considerations

Ingredient	CAS #	Status	Reference number
CE-MS Run Buffer Methanol (l); Methyl alcohol (l)	67-56-1	Listed	U154

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

Additional information : **Special provisions**
251, 340

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information

Section 14. Transport information

DOT	UN3316	Chemical kits RQ (Ammonium acetate, Methanol)	9	III		**Reportable quantity** 40000 lbs / 18160 kg The classification of the product is due solely to the presence of one or more US DOT-listed 'Hazardous substances' that are subject to reportable quantity requirements and only applies to shipments of packages greater than, or equal to, the product reportable quantity. Package sizes less than the product reportable quantity are not regulated as hazardous materials. **Limited quantity** Yes. **Packaging instruction** **Passenger aircraft** Quantity limitation: 10 kg **Cargo aircraft** Quantity limitation: 10 kg **Special provisions** 15
TDG	UN3316	CHEMICAL KIT	9	III		Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9). **Passenger Carrying Road or Rail Index** 10 **Special provisions** 65, 141
Mexico	UN3316	EQUIPO QUIMICO	9	III		**Special provisions** 251, 340

Section 14. Transport information

IMDG	UN3316	CHEMICAL KIT	9	III		**Emergency schedules (EmS)** F-A, S-P **Special provisions** 251, 340
IATA	UN3316	Chemical kit	9	III		**Passenger and Cargo Aircraft** Quantity limitation: 10 kg Packaging instructions: 960 **Cargo Aircraft Only** Quantity limitation: 10 kg Packaging instructions: 960 **Limited Quantities - Passenger Aircraft** Quantity limitation: 1 kg Packaging instructions: Y960 **Special provisions** A44, A163

PG* : Packing group

Section 15. Regulatory information

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

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.
Clean Water Act (CWA) 311: Ammonium acetate

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Section 15. Regulatory information

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
CE-MS Run Buffer Methanol	≥10 - ≤25	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	**CE-MS Run Buffer** Ammonium acetate Methanol	 631-61-8 67-56-1	 ≥25 - ≤40 ≥10 - ≤25
Supplier notification	**CE-MS Run Buffer** Ammonium acetate Methanol	 631-61-8 67-56-1	 ≥25 - ≤40 ≥10 - ≤25

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: AMMONIUM ACETATE; METHANOL

New York : The following components are listed: Ammonium acetate; Methanol

New Jersey : The following components are listed: AMMONIUM ACETATE; ACETIC ACID, AMMONIUM SALT; METHYL ALCOHOL; METHANOL

Pennsylvania : The following components are listed: ACETIC ACID, AMMONIUM SALT; METHANOL

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
CE-MS Run Buffer Methanol	No.	Yes.	No.	23000 µg/day (ingestion) 47000 µg/day (inhalation)

Canada inventory : All components are listed or exempted.

International regulations

International lists : **Australia inventory (AICS)**: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory: Not determined.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI): All components are listed or exempted.
Turkey inventory: Not determined.

Section 15. Regulatory information

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

Section 16. Other information

History

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Indicates information that has changed from previously issued version.

Notice to reader

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