

# **SAFETY DATA SHEET**

Version 6.5 Revision Date 07/22/2021 Print Date 07/31/2021

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

### **1.1 Product identifiers**

Product name	<sup>:</sup> Folin & Ciocalteu's phenol reagent
Product Number Brand	: F9252 : Sigma-Aldrich
	•·· · · · · · · · · · ·

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

Identified uses : Laboratory chemicals, Synthesis of substances

# 1.3 Details of the supplier of the safety data sheet

Company	:	Sigma-Aldrich Inc. 3050 SPRUCE ST ST. LOUIS MO 63103 UNITED STATES	
Telephone	:	+1 314 771-5765	
Fax	:	+1 800 325-5052	

# 1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

# **SECTION 2: Hazards identification**

# 2.1 Classification of the substance or mixture

# GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Corrosive to Metals (Category 1), H290 Skin corrosion (Category 1), H314 Serious eye damage (Category 1), H318 Short-term (acute) aquatic hazard (Category 3), H402

For the full text of the H-Statements mentioned in this Section, see Section 16.

# 2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word



Danger

Hazard statement(s) H290

May be corrosive to metals.

Sigma-Aldrich - F9252

Page 1 of 16



H314 H402	Causes severe skin burns and eye damage. Harmful to aquatic life.
Precautionary statement(s)	
P234	Keep only in original container.
P264	Wash skin thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated
	clothing. Rinse skin with water/ shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable
	for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 +	IF IN EYES: Rinse cautiously with water for several minutes.
P310	Remove contact lenses, if present and easy to do. Continue
	rinsing. Immediately call a POISON CENTER/ doctor.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner
	liner.
P501	Dispose of contents/ container to an approved waste disposal plant.

# 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

# **SECTION 3:** Composition/information on ingredients

#### 3.2 Mixtures

Synonyms

: protein assay

Component		Classification	Concentration
lithium sulphate			
CAS-No. EC-No. Registration number	10377-48-7 233-820-4 01-2119968668-14- XXXX	Acute Tox. 4; Eye Irrit. 2A; Aquatic Acute 2; H302, H319, H401	>= 10 - < 20 %
Hydrochloric Acid			
CAS-No. EC-No. Index-No. Registration number	7647-01-0 231-595-7 017-002-01-X 01-2119484862-27- XXXX	Met. Corr. 1; Skin Corr. 1B; Eye Dam. 1; STOT SE 3; H290, H314, H318, H335 Concentration limits: >= 0.1 %: Met. Corr. 1, H290; >= 25 %: Skin Corr. 1B, H314; 10 - < 25 %: Skin Irrit. 2, H315; 10 - < 25 %: Eye Irrit. 2, H319; >= 10 %: STOT SE 3, H335;	>= 5 - < 10 %

Sigma-Aldrich - F9252

Page 2 of 16



phosphoric acid				
CAS-No. EC-No. Index-No. Registration number	7664-38-2 231-633-2 015-011-00-6 01-2119485924-24- XXXX	Met. Corr. 1; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; H290, H302, H314, H318 Concentration limits: >= 1 %: Met. Corr. 1, H290; >= 25 %: Skin Corr. 1B, H314; 10 - < 25 %: Skin Irrit. 2, H315; 10 - < 25 %: Eye Irrit. 2, H319;	>= 5 - < 10 %	
Disodium wolframate dihydrate				
CAS-No. EC-No.	10213-10-2 236-743-4	Acute Tox. 4; Aquatic Acute 3; H302, H402	>= 1 - < 5 %	

For the full text of the H-Statements mentioned in this Section, see Section 16.

# SECTION 4: First aid measures

# 4.1 Description of first-aid measures

# **General advice**

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

# If inhaled

After inhalation: fresh air. Call in physician.

# In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

# In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

# If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

# 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

# **4.3 Indication of any immediate medical attention and special treatment needed** No data available

Sigma-Aldrich - F9252

Page 3 of 16



# **SECTION 5: Firefighting measures**

# 5.1 Extinguishing media

### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

# 5.2 Special hazards arising from the substance or mixture

Sulfur oxides Oxides of phosphorus Hydrogen chloride gas Sodium oxides Lithium oxides Tungsten oxide Molybdenum oxides Not combustible. Ambient fire may liberate hazardous vapours.

### **5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### 5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

### **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

**6.2 Environmental precautions** Do not let product enter drains.

# **6.3** Methods and materials for containment and cleaning up Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g.

Chemizorb® H<sup>+</sup>, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

**6.4 Reference to other sections** For disposal see section 13.

# **SECTION 7: Handling and storage**

**7.1 Precautions for safe handling** For precautions see section 2.2.

Sigma-Aldrich - F9252

Page 4 of 16



# 7.2 Conditions for safe storage, including any incompatibilities

# Storage conditions

No metal containers. Tightly closed. Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

# 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

# SECTION 8: Exposure controls/personal protection

# 8.1 Control parameters

# Ingredients with workplace control parameters

Component	CAS-No.	Value	Control	Basis
			parameters	
Hydrochloric Acid	7647-01-0	С	2 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Not classifiable as a human carcinogen		

Sigma-Aldrich - F9252

Page 5 of 16



osure Z-1 ants 1 Limits exposure Article
Z-1 ants 1 Limits exposure Article
ants 1 Limits exposure Article
1 Limits exposure Article
exposure Article
Article
Article
Article
VDOSUFA
VNOSUIPO
rhosuie
Article
Limit
Limit
nded
nded
osure
Z-1
ants
exposure
•
Article
exposure
•
Article
Limit
-
nded
nded
xposure
r
Article
xposure
F
Anticla
Article

# 8.2 Exposure controls

# Appropriate engineering controls

Sigma-Aldrich - F9252

Page 6 of 16





Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

# **Personal protective equipment**

### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

#### Splash contact

Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

# **Body Protection**

Acid-resistant protective clothing

# **Respiratory protection**

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

# **Control of environmental exposure**

Do not let product enter drains.

# **SECTION 9: Physical and chemical properties**

# 9.1 Information on basic physical and chemical properties

- a) Appearance Form: liquid
- b) Odor pungent
- c) Odor Threshold No data available
- d) pH < 0.5 at 20 °C (68 °F)

Sigma-Aldrich - F9252

Page 7 of 16



e)	Melting point/freezing point	No data available
f)	Initial boiling point and boiling range	No data available
g)	Flash point	()No data available
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapor pressure	No data available
I)	Vapor density	No data available
m)	Density	1.240 g/cm3 at 20 °C (68 °F)
	Relative density	No data available
n)	Water solubility	soluble
o)	Partition coefficient: n-octanol/water	No data available
p)	Autoignition temperature	Not applicable
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
,	F F - F	
t)	Oxidizing properties	No data available

9.2 Other safety information No data available

# **SECTION 10: Stability and reactivity**

# 10.1 Reactivity

No data available

# 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

- **10.3 Possibility of hazardous reactions** No data available
- **10.4 Conditions to avoid** no information available
- **10.5 Incompatible materials** Strong oxidizing agents, MetalsMetals
- **10.6 Hazardous decomposition products** In the event of fire: see section 5

Sigma-Aldrich - F9252

Page 8 of 16



# SECTION 11: Toxicological information

# **11.1 Information on toxicological effects**

Mixture

Acute toxicity Oral: No data available

Inhalation: No data available

Acute toxicity estimate Inhalation - 4 h - > 200 mg/l (Calculation method) Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract Dermal: No data available

Acute toxicity estimate Dermal - > 5,000 mg/kg (Calculation method) No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation No data available Mixture causes serious eye damage. Risk of blindness!

**Respiratory or skin sensitization** No data available

Germ cell mutagenicity

No data available

### Carcinogenicity

- IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

# **Reproductive toxicity**

No data available No data available

**Specific target organ toxicity - single exposure** No data available

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard

No data available

# **11.2 Additional Information**

Large doses of lithium ion have caused dizziness and prostration, and can cause kidney damage if sodium intake is limited. Dehydration, weight loss, dermatological effects, and

Sigma-Aldrich - F9252

Page 9 of 16



thyroid disturbances have been reported. Central nervous system effects that include slurred speech, blurred vision, sensory loss, ataxia, and convulsions may occur. Diarrhea, vomiting, and neuromuscular effects such as tremor, clonus, and hyperactive reflexes may occur as a result of repeated exposure to lithium ion., Lithium and its compounds are possible teratogens by analogy to lithium carbonate which has equivocal human teratogenic data and positive animal teratogenic data.

Exposure to high concentrations can cause:

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Liver - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

# Components

# lithium sulphate

# Acute toxicity

LD50 Oral - Rat - 613 mg/kg Remarks: (ECHA) LC50 Inhalation - Rat - male and female - 4 h - > 2 mg/l (OECD Test Guideline 403) The value is given in analogy to the following substances: Lithium carbonate LD50 Dermal - Rabbit - male and female - > 3,000 mg/kg (OECD Test Guideline 402) The value is given in analogy to the following substances: Lithium carbonate

# Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) The value is given in analogy to the following substances: Lithium carbonate

# Serious eye damage/eye irritation

Eyes - Rabbit Result: Eye irritation (OECD Test Guideline 405) The value is given in analogy to the following substances: Lithium carbonate

# **Respiratory or skin sensitization**

Sensitisation test: - Guinea pig Result: negative (OECD Test Guideline 406) The value is given in analogy to the following substances: Lithium carbonate

# Germ cell mutagenicity

Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Result: negative The value is given in analogy to the following substances: Lithium hydroxide

Sigma-Aldrich - F9252



Page 10 of 16

Test Type: Chromosome aberration test in vitro Test system: Human lymphocytes Result: negative The value is given in analogy to the following substances: Lithium hydroxide Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Result: negative The value is given in analogy to the following substances: Lithium hydroxide

# Carcinogenicity

No data available

### **Reproductive toxicity**

Lithium and its compounds are possible teratogens by analogy to lithium carbonate which has equivocal human teratogenic data and positive animal teratogenic data.

**Specific target organ toxicity - single exposure** No data available

**Specific target organ toxicity - repeated exposure** No data available

### **Aspiration hazard**

No data available

# **Hydrochloric Acid**

### Acute toxicity

Oral: No data available Inhalation: Cough Difficulty in breathing Inhalation: absorption Inhalation: Corrosive to respiratory system. Symptoms: mucosal irritations, Cough, Shortness of breath, Inhalation may lead to the formation of oedemas in the respiratory tract., Possible damages:, damage of respiratory tract, tissue damage Dermal: No data available

# Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE) Result: Corrosive (OECD Test Guideline 431)

# Serious eye damage/eye irritation

Eyes - Bovine cornea Result: Corrosive (OECD Test Guideline 437)

#### **Respiratory or skin sensitization**

Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)

# Germ cell mutagenicity

Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells Result: Conflicting results have been seen in different studies.

# Carcinogenicity

Carcinogenicity - Did not show carcinogenic effects in animal experiments. (IUCLID)

Sigma-Aldrich - F9252

Page 11 of 16



# **Reproductive toxicity**

No data available

# Specific target organ toxicity - single exposure

May cause respiratory irritation.

The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation. Acute inhalation toxicity - mucosal irritations, Cough, Shortness of breath,

Inhalation may lead to the formation of oedemas in the respiratory tract., Possible damages:, damage of respiratory tract, tissue damage

# Specific target organ toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure. Aspiration hazard

No aspiration toxicity classification

# phosphoric acid

# Acute toxicity

LD50 Oral - Rat - 1,250 mg/kg Remarks: Lungs, Thorax, or Respiration: Acute pulmonary edema. Liver: Changes in liver weight. (RTECS) Inhalation: No data available Dermal: No data available No data available

# Skin corrosion/irritation

Skin - Rabbit Result: Causes burns. - 24 h Remarks: (ECHA) (Regulation (EC) No 1272/2008, Annex VI)

#### Serious eye damage/eye irritation Causes serious eye damage.

### **Respiratory or skin sensitization** No data available

# Germ cell mutagenicity

Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Result: negative Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Human lymphocytes **Result:** negative Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Result: negative

# Carcinogenicity

No data available

# **Reproductive toxicity**

No data available

Specific target organ toxicity - single exposure No data available

Sigma-Aldrich - F9252

Page 12 of 16





# Specific target organ toxicity - repeated exposure

# Aspiration hazard

No data available

# Disodium wolframate dihydrate

### Acute toxicity

Oral: absorption LD50 Oral - Rat - male and female - 1,453 mg/kg (OECD Test Guideline 401) The value is given in analogy to the following substances: Sodium tungstate LC50 Inhalation - Rat - male and female - 4 h - > 5.01 mg/l (OECD Test Guideline 403) LD50 Dermal - Rat - male and female - > 2,000 mg/kg (OECD Test Guideline 402)

# Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)

# Serious eye damage/eye irritation

Eyes - Rabbit Result: slight irritation (OECD Test Guideline 405) The value is given in analogy to the following substances: Sodium tungstate

### **Respiratory or skin sensitization**

Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406) The value is given in analogy to the following substances: Sodium tungstate

# Germ cell mutagenicity

Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster ovary cells Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test Result: negative Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Result: negative Method: OECD Test Guideline 474 Species: Mouse - male - Bone marrow Result: negative

#### **Carcinogenicity** No data available

Reproductive toxicity No data available

# Specific target organ toxicity - single exposure No data available

# Specific target organ toxicity - repeated exposure No data available

Sigma-Aldrich - F9252

Page 13 of 16





SECT	TON 12: Ecological inform	mation		
12.1	Toxicity			
	<b>Mixture</b> No data available			
12.2	Persistence and degrada No data available	ability		
12.3	<b>Bioaccumulative potent</b> No data available	ial		
12.4	<b>Mobility in soil</b> No data available			
12.5	<b>Results of PBT and vPvB assessment</b> PBT/vPvB assessment not available as chemical safety assessment not required/not conducted			
12.6 Other adverse effects No data available				
	Components			
	lithium sulphate Toxicity to fish	static test LC50 - Oncorhynchus mykiss (rainbow trout) - 30.3 mg/l - 96 h (OECD Test Guideline 203)		
	Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 33.2 mg/l - 48 h (OECD Test Guideline 202)		
	Toxicity to algae	static test ErC50 - Desmodesmus subspicatus (green algae) - > 400 mg/l - 72 h (OECD Test Guideline 201)		
	Toxicity to bacteria	static test EC50 - activated sludge - 180.8 mg/l - 3 h (OECD Test Guideline 209)		
	<b>Hydrochloric Acid</b> No data available Toxicity to fish	LC50 - Gambusia affinis (Mosquito fish) - 282 mg/l - 96 h Remarks: (IUCLID)		
	<b>phosphoric acid</b> Toxicity to daphnia	static test EC50 - Daphnia magna (Water flea) - > 100 mg/l -		
	and other aquatic invertebrates	48 h (OECD Test Guideline 202)		

Sigma-Aldrich - F9252

Toxicity to algae

Page 14 of 16

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada

100 mg/l - 72 h



static test ErC50 - Desmodesmus subspicatus (green algae) - >

		(OECD Test Guideline 201)
	Toxicity to bacteria	static test EC50 - activated sludge - > 1,000 mg/l - 3 h (OECD Test Guideline 209)
Diso	dium wolframate dih	ovdrate
2.00	Toxicity to fish	static test LC50 - Danio rerio (zebra fish) - > 200 mg/l - 96 h (OECD Test Guideline 203)
	Toxicity to daphnia and other aquatic invertebrates	static test - Daphnia magna (Water flea) - > 163 mg/l - 48 h (OECD Test Guideline 202)
	Toxicity to algae	static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 17.7 mg/l - 72 h (OECD Test Guideline 201) Remarks: The value is given in analogy to the following substances: Sodium tungstate
		static test EC10 - Pseudokirchneriella subcapitata (green algae) - 5.76 mg/l - 72 h (OECD Test Guideline 201) Remarks: The value is given in analogy to the following substances: Sodium tungstate
	Toxicity to bacteria	static test - activated sludge - > 1,000 mg/l - 30 min (OECD Test Guideline 209)

# SECTION 13: Disposal considerations

# **13.1** Waste treatment methods

# Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

# **SECTION 14: Transport information**

# DOT (US)

UN number: 3264 Class: 8 Packing group: III Proper shipping name: Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric Acid, phosphoric acid) Reportable Quantity (RQ): Poison Inhalation Hazard: No

# IMDG

UN number: 3264 Class: 8 Packing group: III EMS-No: F-A, S-B Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric Acid, phosphoric acid)

Sigma-Aldrich - F9252

Page 15 of 16



# **SECTION 15: Regulatory information**

# SARA 302 Components

This material does not contain any components with a section 302 EHS TPQ.

# SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Hydrochloric Acid	7647-01-0	2013-02-08

# SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

# **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

# **SECTION 16: Other information**

### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Copyright 2020 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact mlsbranding@sial.com.

Version: 6.5

Revision Date: 07/22/2021

Print Date: 07/31/2021

Sigma-Aldrich - F9252

Page 16 of 16



