SAFETY DATA SHEET

Version 4.13 Revision Date 05/21/2015 Print Date 06/29/2015

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Phenol:Chloroform:Isoamyl Alcohol 25:24:1

Saturated with 10 mM Tris, pH 8.0, 1 mM EDTA.

Product Number : P2069 Brand : Sigma

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich

3050 Spruce Street SAINT LOUIS MO 63103

USA

Telephone : +1 800-325-5832 Fax : +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone # : (314) 776-6555

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 4), H312

Skin corrosion (Category 1B), H314

Serious eye damage (Category 1), H318

Germ cell mutagenicity (Category 2), H341

Carcinogenicity (Category 2), H351

Reproductive toxicity (Category 2), H361

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

Specific target organ toxicity - repeated exposure (Category 1), Liver, Kidney, H372

Specific target organ toxicity - repeated exposure (Category 2), H373

Acute aquatic toxicity (Category 3), H402

Chronic aquatic toxicity (Category 2), H411

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)

H301 Toxic if swallowed.

H312 + H332 Harmful in contact with skin or if inhaled

H314 H318 H336 H341 H351 H361 H372	Causes severe skin burns and eye damage. Causes serious eye damage. May cause drowsiness or dizziness. Suspected of causing genetic defects. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs (Liver, Kidney) through prolonged or repeated exposure. May cause damage to organs through prolonged or repeated exposure.
H402 H411	Harmful to aquatic life. Toxic to aquatic life with long lasting effects.
Precautionary statement(s)	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
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 or doctor/ physician.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS Rapidly absorbed through skin., Vesicant. 2.3

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 **Mixtures**

Hazardous components

mazardous compone	1110		
Component		Classification	Concentration
Phenol			
CAS-No. EC-No. Index-No.	108-95-2 203-632-7 604-001-00-2	Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Muta. 2; STOT RE 2; Aquatic Acute 3; Aquatic Chronic 2; H301 + H311 + H331, H314, H318, H341, H373, H402, H411	>= 50 - < 70 %
Chloroform			
CAS-No.	67-66-3	Acute Tox. 4; Acute Tox. 3;	>= 30 - < 50 %
EC-No.	200-663-8	Skin Irrit. 2; Eye Irrit. 2A; Carc.	
Index-No.	602-006-00-4	2; Repr. 2; STOT SE 3; STOT	
		RE 1; Aquatic Acute 3; H302,	

Sigma - P2069 Page 2 of 12

		H315, H319, H331, H336, H351, H361, H372, H402	
3-Methylbutan-1-ol			
CAS-No.	123-51-3	Flam. Liq. 3; Acute Tox. 4;	>= 1 - < 5 %
EC-No.	204-633-5	Skin Irrit. 2; Eye Irrit. 2A;	
Index-No.	603-006-00-7	STOT SE 3; H226, H315,	
		H319, H332, H335	

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

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Sigma - P2069 Page 3 of 12

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature 2 - 8 °C

7.3 Specific end use(s)

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis		
Phenol	108-95-2	TWA	5.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)		
	Remarks		vous System impai iratory Tract irritation			
		Substances (see BEI® s	for which there is a	a Biological Exposure Index or Indices		
			utaneous absorptio			
		TWA	5.000000 ppm 19.000000	USA. NIOSH Recommended Exposure Limits		
		Potential for	mg/m3 dermal absorption			
		C	15.600000 ppm	USA. NIOSH Recommended		
			60.000000 ppm 60.000000 mg/m3	Exposure Limits		
		Potential for dermal absorption				
		15 minute c				
		TWA	5.000000 ppm 19.000000	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air		
			mg/m3	Contaminants		
		Skin designa The value in	n mg/m3 is approxir	mate.		
Chloroform	67-66-3	TWA	10.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)		
		Central Ner	vous System impair	rment		
		Liver damag				
		Embryo/feta				
				vith unknown relevance to humans		
		ST	2.000000 ppm	USA. NIOSH Recommended		
			9.780000 mg/m3	Exposure Limits		
		Potential Oc	ccupational Carcino	l iden		
		See Appendix A				
		С	50.000000 ppm	USA. Occupational Exposure Limits		
			240.000000	(OSHA) - Table Z-1 Limits for Air		
			mg/m3	Contaminants		
		The value in	n mg/m3 is approxir	nate.		

Sigma - P2069 Page 4 of 12

		Ceiling limit	is to be determined	d from breathing-zone air samples.
3-Methylbutan-1-ol	123-51-3	TWA	100.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Upper Resp Eye irritation	iratory Tract irritation	on
		STEL	125.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Upper Resp Eye irritation	iratory Tract irritation	on
		TWA	100.000000 ppm 360.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	125.000000 ppm 450.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	100.000000 ppm 360.000000 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in	mg/m3 is approxii	mate.

Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
Phenol	108-95-2	Phenol	250mg/g Creatinine	Urine	ACGIH - Biological Exposure Indices (BEI)
	Remarks	End of shift (As	s soon as po	ssible after exposure	ceases)

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

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: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

Splash contact

Material: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

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

EN374

Sigma - P2069 Page 5 of 12

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE 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

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

	ormation on basic physic	ai and chemical pro
a)	Appearance	Form: liquid, clear Colour: colourless
b)	Odour	No data available
c)	Odour Threshold	No data available
d)	рН	No data available
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)	Vapour pressure	No data available
I)	Vapour density	No data available
m)	Relative density	No data available
n)	Water solubility	No data available
o)	Partition coefficient: n-octanol/water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

9.2 Other safety information

No data available

Sigma - P2069 Page 6 of 12

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents, Strong bases, Strong acids, Lithium, Magnesium, Sodium/sodium oxides, Acid chlorides, Acid anhydrides, Reducing agents

10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 317.0 mg/kg (Phenol)

Remarks: Behavioral: Convulsions or effect on seizure threshold.

LD50 Oral - Rat - 410.0 - 650.0 mg/kg (Phenol)

LD50 Oral - Rat - 908 mg/kg (Chloroform)

Remarks: Behavioral:Change in motor activity (specific assay). Behavioral:Ataxia. Lungs, Thorax, or

Respiration: Respiratory stimulation.

LC50 Inhalation - Rat - 8 h - 900 mg/m3 (Phenol)

LOEC Inhalation - Rat - male - 6 h - 500 ppm (Chloroform)

LD50 Dermal - Rabbit - 630.0 mg/kg (Phenol)

LD50 Dermal - Rabbit - > 20,000 mg/kg (Chloroform)

No data available

No data available (Phenol)

No data available (Chloroform)

Skin corrosion/irritation

Skin - Rabbit (Phenol)

Result: Severe skin irritation - 24 h

Skin - Rabbit (Chloroform) Result: Irritating to skin. - 24 h

Serious eye damage/eye irritation

Eyes - Rabbit (Phenol)

Result: Corrosive

(OECD Test Guideline 405)

Eyes - Rabbit (Chloroform) Result: Irritating to eyes. - 24 h

Respiratory or skin sensitisation

No data available (Phenol)

Did not cause sensitisation on laboratory animals. (Chloroform)

Sigma - P2069 Page 7 of 12

Germ cell mutagenicity

In vitro tests showed mutagenic effects (Phenol)

Laboratory experiments have shown mutagenic effects. (Chloroform)

Carcinogenicity

Carcinogenicity - Rat - Oral

Tumorigenic:Carcinogenic by RTECS criteria. Leukaemia (Chloroform)

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. (Phenol)

(Phenol)

(Phenol)

(Phenol)

The National Cancer Institute (NCI) has found clear evidence for carcinogenicity. Limited evidence of a carcinogenic effect. (Chloroform)

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Chloroform)

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Phenol)

NTP: Reasonably anticipated to be a human carcinogen (Chloroform)

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a

carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available (Phenol)

Suspected of damaging the unborn child. Suspected human reproductive toxicant (Chloroform)

No data available (Phenol)

Specific target organ toxicity - single exposure

No data available (Phenol)

May cause drowsiness or dizziness. (Chloroform)

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1. - Liver, Kidney

Aspiration hazard

No data available (Phenol)

No data available (Chloroform)

Additional Information

RTECS: Not available

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Circulatory collapse, tachypnea, paralysis, Convulsions, Coma., necrosis of mouth and G.I. Tract, Jaundice, respiratory failure, cardiac arrest (Phenol)

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (Phenol)

Vomiting, Gastrointestinal disturbance, Exposure to and/or consumption of alcohol may increase toxic effects. (Chloroform)

Stomach - Irregularities - Based on Human Evidence

Liver - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence (Phenol)

Stomach - Irregularities - Based on Human Evidence (Chloroform)

Liver - Irregularities - Based on Human Evidence (3-Methylbutan-1-ol)

Sigma - P2069 Page 8 of 12

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 - Leuciscus idus (Golden orfe) - 14.00 - 25.00 mg/l - 48 h (Phenol)

LC50 - Carassius auratus (goldfish) - 36.10 - 68.80 mg/l - 96 h (Phenol)

LC50 - Leuciscus idus (Golden orfe) - 162 mg/l - 48 h (Chloroform)

LC100 - Leuciscus idus (Golden orfe) - 220 mg/l - 48 h (Chloroform)

LC50 - other fish - 97 mg/l - 96 h (Chloroform)

LC50 - Danio rerio (zebra fish) - 121 mg/l - 96 h (Chloroform)

NOEC - Oryzias latipes - 122 mg/l - 10 d (Chloroform)

NOEC - Oncorhynchus mykiss (rainbow trout) - 24 mg/l - 96 h (Chloroform)

Toxicity to daphnia and

other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 56 mg/l - 48 h (Phenol)

EC50 - Daphnia magna (Water flea) - 79.00 mg/l - 24 h (Chloroform)

Immobilization EC50 - Daphnia magna (Water flea) - 51.6 mg/l - 48 h

(Chloroform)

NOEC - Daphnia magna (Water flea) - 120 mg/l - 11 d (Chloroform)

Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae) - 370.00 mg/l - 96 h (Phenol)

EC50 - No information available. - 500.00 mg/l - 24 h (Chloroform)

12.2 Persistence and degradability

Biodegradability

Result: - Readily biodegradable

No data available

12.3 Bioaccumulative potential

Bioaccumulation

Danio rerio (zebra fish) - 5 h

- 2 mg/l (Phenol)

Bioconcentration factor (BCF): 17.5 Remarks: Does not bioaccumulate. Lepomis macrochirus (Bluegill) - 14 d

- 0.11 mg/l (Chloroform)

Bioconcentration factor (BCF): 6

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

Sigma - P2069 Page 9 of 12

14. TRANSPORT INFORMATION

DOT (US)

UN number: 2810 Class: 6.1 Packing group: III Proper shipping name: Toxic, liquids, organic, n.o.s. (Phenol, Chloroform)

Reportable Quantity (RQ): 21 lbs

Poison Inhalation Hazard: No

IMDG

UN number: 2810 Class: 6.1 Packing group: III EMS-No: F-A, S-A

Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Phenol, Chloroform)

IATA

UN number: 2810 Class: 6.1 Packing group: III Proper shipping name: Toxic liquid, organic, n.o.s. (Phenol, Chloroform)

15. REGULATORY INFORMATION

SARA 302 Components

The following components are subject to reporting levels	established by SARA Title III	, Section 302:
	CAS-No.	Revision Date
Phenol	108-95-2	2007-07-01
Chloroform	67-66-3	2008-11-03

SARA 313 Components

The following components are subject to reporting levels es	stablished by SARA Title	III, Section 313:
	CAS-No.	Revision Date
Phenol	108-95-2	2007-07-01
Chloroform	67-66-3	2008-11-03

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Phenol	108-95-2	2007-07-01
Chloroform	67-66-3	2008-11-03
3-Methylbutan-1-ol	123-51-3	2007-03-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Phenol	108-95-2	2007-07-01
Chloroform	67-66-3	2008-11-03
3-Methylbutan-1-ol	123-51-3	2007-03-01

~ ^ ^ N

New Jersey Right To Know Components

	CAS-No.	Revision Date
Phenol	108-95-2	2007-07-01
Chloroform	67-66-3	2008-11-03
3-Methylbutan-1-ol	123-51-3	2007-03-01

California Prop. 65 Components

WARNING! This product contains a chemical known to the	CAS-No.	Revision Date
State of California to cause cancer.	67-66-3	2011-09-01

Chloroform

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive 67-66-3 2011-09-01 harm.

Chloroform

Sigma - P2069 Page 10 of 12

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity

Aquatic Acute Acute aquatic toxicity
Aquatic Chronic Chronic aquatic toxicity

Carc. Carcinogenicity
Eye Dam. Serious eye damage

Eye Irrit. Eye irritation Flam. Liq. Flammable liquids

H226 Flammable liquid and vapour.

H301 Toxic if swallowed.

H301 + H311 + Toxic if swallowed, in contact with skin or if inhaled

H331

H302 Harmful if swallowed.
H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage. H319 Causes serious eye irritation.

H331 Toxic if inhaled. H332 Harmful if inhaled.

H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.

H402 Harmful to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Muta. Germ cell mutagenicity
Repr. Reproductive toxicity
Skin Corr. Skin corrosion

Skin Irrit.

SKin irritation

STOT RE

Specific target organ toxicity - repeated exposure

STOT SE

Specific target organ toxicity - single exposure

HMIS Rating

Health hazard: 3
Chronic Health Hazard: *
Flammability: 0
Physical Hazard 0

NFPA Rating

Health hazard: 3
Fire Hazard: 0
Reactivity Hazard: 0

Further information

Copyright 2015 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only. 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.

Sigma - P2069 Page 11 of 12

Preparation Information Sigma-Aldrich Corporation Product Safety – Americas Region 1-800-521-8956

Version: 4.13 Revision Date: 05/21/2015 Print Date: 06/29/2015

Sigma - P2069 Page 12 of 12