

Kit Summary

Product Code(s) AB150660
Product name Acid Fast Bacteria (AFB) Stain Kit (Microorganism Stain)

Carbol Fuchsin Solution

Chemical Name	EC-No	CAS-No	Weight %	Classification (67/548)	Classification (Reg. 1272/2008)	REACH Registration Number
Ethanol	200-578-6	64-17-5	70	F; R11	Flam Liq. 2 (H225)	no data available
Phenol	203-632-7	108-95-2	5	T; R23/24/25 C; R34 Xn; R48/20/21/22 Muta.Cat.3; R68	Acute Tox. 3 H301 Acute Tox. 3 H311 Skin Corr. 1B H314 STOT RE 2 H373 Muta. 2 H341 Acute Tox. 3 H331	no data available
Basic Fuchsin	211-189-6	632-99-5	0.5	Xn; R22 R40	Acute Tox. 4 (H302)	no data available

Acid Alcohol Solution (0.5%)

Chemical Name	EC-No	CAS-No	Weight %	Classification (67/548)	Classification (Reg. 1272/2008)	REACH Registration Number
Ethanol	200-578-6	64-17-5	65	F; R11	Flam Liq. 2 (H225)	
Isopropanol	200-661-7	67-63-0	0.5	F; R11 Xi; R36 R67	STOT SE 3 (H336) Eye Irrit. 2 (H319) Flam Liq. 1 (H224)	
Hydrochloric acid	231-595-7	7647-01-0	0.5	C; R34 Xi; R37	STOT SE 3 (H335) Skin Corr. 1B (H314)	

GHS / CLP - GHS - Classification



Signal Word
Danger

Hazard statements

H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H341 - Suspected of causing genetic defects
H225 - Highly flammable liquid and vapor

Precautionary Statements - EU (§28, 1272/2008)

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P310 - Immediately call a POISON CENTER or doctor/ physician
P308 + P313 - IF exposed or concerned: Get medical advice/ attention
P370 + P378 - In case of fire: Use foam for extinction
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves/ eye protection/ face protection
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/ container to an approved waste disposal plant
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P281 - Use personal protective equipment as required
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233 - Keep container tightly closed
P403 + P235 - Store in a well-ventilated place. Keep cool
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

2.3 Other information

A safety datasheet follows for all potentially hazardous components – all other components are non-hazardous.

TRANSPORT INFORMATION

DOT	Limited quantity
Proper shipping name	Ethanol Solution
Hazard class	3
UN/ID No	1170
Packing group	III

IATA	Limited quantity
UN/ID No	1170
Proper shipping name	Ethanol Solution
Hazard class	3
Packing group	III

ADR	Limited quantity
Proper shipping name	Ethanol Solution
Hazard class	3
UN/ID No	1170
Packing group	III

Safety Data Sheet

Issuing date no data available

Revision Date 30-Dec-2015

Version 4

1. PRODUCT AND COMPANY IDENTIFICATION

Product name Carbol Fuchsin Solution

UN/ID No 1170

Recommended use For research use only

Supplier Address Abcam Inc
1 Kendall Square, Ste 341
Cambridge, MA 02139-1517
USA
Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free)
Fax: (866) 739-9884 or (866) 457-9616 (both US toll free)

E-mail address technical@abcam.com

Emergency telephone Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free) - Monday-Friday 8am-9pm EST

2. HAZARDS IDENTIFICATION

GHS - Classification

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Germ cell mutagenicity	Category 2
Ozone	Not applicable
Flammable liquids	Category 2

GHS Label elements, including precautionary statements



Signal Word
Danger

Hazard statements

H314 - Causes severe skin burns and eye damage
 H318 - Causes serious eye damage
 H341 - Suspected of causing genetic defects
 H225 - Highly flammable liquid and vapor

Precautionary Statements - EU (§28, 1272/2008)

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower
 P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
 P310 - Immediately call a POISON CENTER or doctor/ physician
 P308 + P313 - IF exposed or concerned: Get medical advice/ attention
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P280 - Wear protective gloves/ eye protection/ face protection
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 P370 + P378 - In case of fire: Use foam for extinction
 P405 - Store locked up
 P501 - Dispose of contents/ container to an approved waste disposal plant
 P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P281 - Use personal protective equipment as required
 P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 P233 - Keep container tightly closed
 P403 + P235 - Store in a well-ventilated place. Keep cool
 P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

Other information

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	CAS-No	Weight %	Classification (Reg. 1272/2008)
Ethanol	64-17-5	60-99	Flam Liq. 2 (H225)
Phenol	108-95-2	3-7	Acute Tox. 3 H301 Acute Tox. 3 H311 Skin Corr. 1B H314 STOT RE 2 H373 Muta. 2 H341 Acute Tox. 3 H331

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

4. FIRST AID MEASURES

General advice	Immediate medical attention is required.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Immediate medical attention is required.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.
Inhalation	Move to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Immediate medical attention is required.
Ingestion	Rinse mouth. Do NOT induce vomiting. Immediate medical attention is required.
Notes to physician	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.
Protection of first-aiders	Use personal protective equipment. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE-FIGHTING MEASURES

Flammable properties	Not flammable.
Flash point	not determined
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Explosion Data	
Sensitivity to Mechanical Impact	none.
Sensitivity to Static Discharge	none.
Specific hazards arising from the chemical	The product causes burns of eyes, skin and mucous membranes Thermal decomposition can lead to release of irritating gases and vapors In the event of fire and/or explosion do not breathe fumes
Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Try to prevent the material from entering drains or water courses.
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Take up mechanically and collect in suitable container for disposal. Clean contaminated surface thoroughly. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.
Other information	Refer to protective measures listed in sections 7 and 8.

7. HANDLING AND STORAGE

Advice on safe handling Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation at machinery.

Technical measures/Storage conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Phenol 108-95-2	TWA: 5 ppm S*	TWA: 5 ppm TWA: 19 mg/m ³ (vacated) TWA: 5 ppm (vacated) TWA: 19 mg/m ³ (vacated) S* S*	IDLH: 250 ppm Ceiling: 15.6 ppm 15 min Ceiling: 60 mg/m ³ 15 min TWA: 5 ppm TWA: 19 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering measures Showers
Eyewash stations
Ventilation systems

Personal protective equipment

Eye/face protection Tightly fitting safety goggles. Face-shield.

Skin and body protection No special protective equipment required.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. For environmental protection, remove and wash all contaminated protective equipment before re-use. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	No information available.	Odor	No information available.
Odor Threshold	No information available	Physical State @20°C	No information available
pH	No information available	Autoignition temperature	No information available
Flash point	No information available	Boiling point/boiling range	No information available
Decomposition temperature	No information available	Flammability Limits in Air	No information available
Melting point/range	No information available		
Explosion limits	No information available	solubility	No information available.
Specific Gravity	no data available	Vapor density	no data available
Evaporation rate	No information available		
VOC Content(%)	75		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Incompatible products	Incompatible with strong acids and bases. Incompatible with oxidizing agents.
Conditions to avoid	Exposure to air or moisture over prolonged periods.
Hazardous decomposition products	Thermal decomposition can lead to release of irritating gases and vapors.
Hazardous polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product Information Corrosive to skin, eyes and/or respiratory tract.

Inhalation Corrosive by inhalation Causes burns

Eye contact Causes burns Corrosive to eyes

Skin contact Corrosive Causes burns

Ingestion Causes burns

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethanol	7060 mg/kg (Rat)		124.7 mg/L (Rat) 4 h
Phenol	317 mg/kg (Rat)	525 mg/kg (Rat) 630 mg/kg (Rabbit)	316 mg/m ³ (Rat) 4 h

Chronic toxicity

Chronic toxicity Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen Avoid repeated exposure Possible risks of irreversible effects May cause adverse liver effects Contains a known or suspected reproductive toxin

Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B)

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethanol	A3	Group 1	Known	X
Phenol		Group 3		

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Target Organ Effects Blood. Central nervous system (CNS). Eyes. Liver. Reproductive System. Respiratory system. Skin. Kidney.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Ethanol		12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through		9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static
Phenol	46.42: 96 h Pseudokirchneriella subcapitata mg/L EC50 0.0188 - 0.1044: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 187 - 279: 72 h Desmodesmus subspicatus mg/L EC50 static	11.9-50.5: 96 h Pimephales promelas mg/L LC50 flow-through 20.5-25.6: 96 h Pimephales promelas mg/L LC50 static 32: 96 h Pimephales promelas mg/L LC50 5.449-6.789: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 7.5-14: 96 h Oncorhynchus mykiss mg/L LC50 static 4.23-7.49: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 5.0-12.0: 96 h Oncorhynchus mykiss mg/L LC50 13.5: 96 h Lepomis macrochirus mg/L LC50 static 11.9-25.3: 96 h Lepomis macrochirus mg/L LC50 flow-through 11.5: 96 h Lepomis macrochirus mg/L LC50 semi-static 34.09-47.64: 96 h Poecilia reticulata mg/L LC50 static 31: 96 h Poecilia reticulata mg/L LC50 semi-static 27.8: 96 h Brachydanio rerio mg/L LC50 0.00175: 96 h Cyprinus carpio mg/L LC50 semi-static 33.9-43.3: 96 h Oryzias latipes mg/L LC50 flow-through 23.4-36.6: 96 h Oryzias latipes mg/L LC50 static		4.24 - 10.7: 48 h Daphnia magna mg/L EC50 Static 10.2 - 15.5: 48 h Daphnia magna mg/L EC50
Chemical Name		log Pow		
Ethanol		-0.32		
Phenol		1.47		

13. DISPOSAL CONSIDERATIONS

Waste disposal methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated packaging Do not re-use empty containers.

US EPA Waste Number U188

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Phenol - 108-95-2	U188	Included in waste streams: F039, K001, K022, K087		U188

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Ethanol	Toxic Ignitable
Phenol	Toxic Corrosive

14. TRANSPORT INFORMATION

DOT Limited quantity
Proper shipping name Ethanol Solution
Hazard class 3
UN/ID No 1170
Packing group III

IATA Limited quantity
UN/ID No 1170
Proper shipping name Ethanol Solution
Hazard class 3
Packing group III

ADR Limited quantity
Proper shipping name Ethanol Solution
Hazard class 3
UN/ID No 1170
Packing group III

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Phenol	108-95-2	5	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard yes
Chronic Health Hazard yes
Fire Hazard no

Sudden Release of Pressure Hazard no
Reactive Hazard no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phenol	1000 lb	X	X	X

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Phenol	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Ethanol	64-17-5	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ethanol	X	X	X		X
Phenol	X	X	X	X	X

International Regulations

Chemical Name	Carcinogen Status	Exposure limits
Ethanol		Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m ³
Phenol		Mexico: TWA 5 ppm Mexico: TWA 19 mg/m ³ Mexico: STEL 10 ppm Mexico: STEL 38 mg/m ³

WHMIS Note:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION**Full text of H-Statements referred to under sections 2 and 3**

H225 - Highly flammable liquid and vapor H301 + H311 - Toxic if swallowed or in contact with skin

H314 - Causes severe skin burns and eye damage H341 - Suspected of causing genetic defects H331 - Toxic if inhaled H373 - May cause damage to organs through prolonged or repeated exposure

Hazard statements

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H341 - Suspected of causing genetic defects

H225 - Highly flammable liquid and vapor

Revision Date 30-Dec-2015

Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of MSDS

Safety Data Sheet

Issuing date no data available

Revision Date 30-Dec-2015

Version 4

1. PRODUCT AND COMPANY IDENTIFICATION

Product name Acid Alcohol Solution (0.5%)

UN/ID No 1170

Recommended use For research use only

Supplier Address Abcam Inc
1 Kendall Square, Ste 341
Cambridge, MA 02139-1517
USA
Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free)
Fax: (866) 739-9884 or (866) 457-9616 (both US toll free)

E-mail address technical@abcam.com

Emergency telephone Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free) - Monday-Friday 8am-9pm EST

2. HAZARDS IDENTIFICATION

GHS - Classification

Ozone	Not applicable
Flammable liquids	Category 2

GHS Label elements, including precautionary statements



Signal Word
Danger

Hazard statements
H225 - Highly flammable liquid and vapor

Precautionary Statements - EU (§28, 1272/2008)

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower

P370 + P378 - In case of fire: Use foam for extinction

P233 - Keep container tightly closed

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P403 + P235 - Store in a well-ventilated place. Keep cool

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P501 - Dispose of contents/ container to an approved waste disposal plant

Other information

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

Chemical Name	CAS-No	Weight %	Classification (Reg. 1272/2008)
Ethanol	64-17-5	40-70	Flam Liq. 2 (H225)
Isopropanol	67-63-0	0.1-1	STOT SE 3 (H336) Eye Irrit. 2 (H319) Flam Liq. 1 (H224)
Hydrochloric acid	7647-01-0	0.1-1	STOT SE 3 (H335) Skin Corr. 1B (H314)

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

4. FIRST AID MEASURES

Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Inhalation	Move to fresh air.
Ingestion	Clean mouth with water. Drink plenty of water.
Notes to physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable properties	Not flammable.
Flash point	not determined
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Explosion Data

Sensitivity to Mechanical Impact
Sensitivity to Static Discharge

none.
none.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Ensure adequate ventilation.

Environmental precautions

Try to prevent the material from entering drains or water courses.

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice.

Technical measures/Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Isopropanol 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
Hydrochloric acid 7647-01-0	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m ³ Ceiling: 5 ppm Ceiling: 7 mg/m ³	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m ³

NIOSH IDLH: *Immediately Dangerous to Life or Health*

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering measures Showers
Eyewash stations
Ventilation systems

Personal protective equipment

Eye/face protection No special protective equipment required.
Skin and body protection No special protective equipment required.
Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	No information available.	Odor	No information available.
Odor Threshold	No information available	Physical State @20°C	No information available
pH	No information available	Autoignition temperature	No information available
Flash point	No information available	Boiling point/boiling range	No information available
Decomposition temperature	No information available	Flammability Limits in Air	No information available
Melting point/range	No information available		
Explosion limits	No information available	solubility	No information available.
Specific Gravity	no data available	Vapor density	no data available
Evaporation rate	No information available		
VOC Content(%)	65.5		

10. STABILITY AND REACTIVITY

Stability Stable under recommended storage conditions.

Incompatible products None known based on information supplied.

Conditions to avoid None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

Hazardous polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product Information Product does not present an acute toxicity hazard based on known or supplied information.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethanol	7060 mg/kg (Rat)		124.7 mg/L (Rat) 4 h
Isopropanol	4396 mg/kg (Rat)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h
Hydrochloric acid	700 mg/kg (Rat)	5010 mg/kg (Rabbit)	3124 ppm (Rat) 1 h

Chronic toxicity

Chronic toxicity May cause adverse liver effects Contains a known or suspected reproductive toxin

Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B)

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethanol	A3	Group 1	Known	X
Isopropanol		Group 1 Group 3		X
Hydrochloric acid		Group 3		

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Target Organ Effects Blood. Central nervous system (CNS). Eyes. Liver. Reproductive System. Respiratory system. Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Ethanol		12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through		9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static
Isopropanol	1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50	9640: 96 h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static 1400000: 96 h Lepomis macrochirus µg/L LC50		13299: 48 h Daphnia magna mg/L EC50
Hydrochloric acid		282: 96 h Gambusia affinis mg/L LC50 static		
Chemical Name		log Pow		
Ethanol		-0.32		
Isopropanol		0.05		

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated packaging

Do not re-use empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Ethanol	Toxic Ignitable
Isopropanol	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT Limited quantity
Proper shipping name Ethanol Solution
Hazard class 3
UN/ID No 1170
Packing group III

IATA Limited quantity
UN/ID No 1170
Proper shipping name Ethanol Solution
Hazard class 3
Packing group III

ADR	Limited quantity
Proper shipping name	Ethanol Solution
Hazard class	3
UN/ID No	1170
Packing group	III

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	no
Chronic Health Hazard	no
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrochloric acid	5000 lb			X

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Hydrochloric acid	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Ethanol	64-17-5	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ethanol	X	X	X		X
Isopropanol	X	X	X		X
Hydrochloric acid	X	X	X	X	X

International Regulations

Chemical Name	Carcinogen Status	Exposure limits
Ethanol		Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m ³

Isopropanol		Mexico: TWA 400 ppm Mexico: TWA 980 mg/m ³ Mexico: STEL 500 ppm Mexico: STEL 1225 mg/m ³
Hydrochloric acid		Mexico: Ceiling 5 ppm Mexico: Ceiling 7 mg/m ³

WHMIS Note: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

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

H225 - Highly flammable liquid and vapor H336 - May cause drowsiness or dizziness H319 - Causes serious eye irritation H224 - Extremely flammable liquid and vapor H335 - May cause respiratory irritation H314 - Causes severe skin burns and eye damage

Hazard statements

H225 - Highly flammable liquid and vapor

Revision Date 30-Dec-2015

Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of MSDS