



Issuing Date Jan-24-2017

Revision Date Jan-24-2017

Revision Number 1
EN

Section 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product identifier**Product name** DPD 1A Free Chlorine Reagent**Product Code(s)** P-6740**Other means of identification****Synonyms** none**Substance or Preparation** Preparation**Recommended use of the chemical and restrictions on use****Recommended Use** Use as a laboratory reagent. Industrial (not for food or food contact use). Laboratory chemicals.**Uses advised against** None**Details of manufacturer or importer**

LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748

Supplier

Vendart Pty Ltd.
2/6 Bonz Place
Seven Hills, NSW 2147
T (02) 9624 8842
F (02) 9674 5115

Contact for timely inquiries in regards to this product**LaMotte Company Customer Information:** system@lamotteco.com**Vendart Pty. Ltd. Customer Information:** info@vendart.com.au**Emergency telephone numbers****24-Hour Emergency telephone number** (CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585**Local emergency telephone number** Poisons Information Center, Australia: 13 11 26
Poisons Information Center, New Zealand: 0800 764 766

Section 2: HAZARD(S) IDENTIFICATION

GHS Classification**Not Hazardous**

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Precautionary Statements

Prevention: Keep out of the reach of children

Response: IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED. Drink 1 or 2 glasses of water. Call a poison center or doctor/physician if you feel unwell.

Other hazards which do not result in classification

None known.

Section 3: COMPOSITION & INFORMATION ON INGREDIENTS

Substance

Not Applicable

Mixture

Chemical name	CAS No	Weight-%
Non-hazardous ingredients	Proprietary	Balance

Section 4: FIRST AID MEASURES

First Aid Measures

General advice	Do not get in eyes, on skin, or on clothing.
Local emergency telephone number	Poisons Information Center, Australia: 13 11 26 Poisons Information Center, New Zealand: 0800 764 766
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Section 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

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

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Specific hazards arising from the chemical No information available.

Special protective actions for fire-fighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. See section 8 for more information. Ensure adequate ventilation. Avoid contact with skin, eyes and inhalation of vapors. Keep people away from and upwind of spill/leak.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

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. After cleaning, flush away traces with water.

Precautions to prevent secondary hazards

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. See section 8 for more information. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep from freezing.

Incompatible materials None known based on information supplied.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

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

Appropriate engineering controls

Engineering controls Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear suitable protective clothing.

Hand protection Wear suitable gloves. Nitrile rubber.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state liquid
Appearance Clear Colorless
Color No information available
Odor None
Odor threshold Not Applicable

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	10	
Melting point / freezing point	-	No information available
Boiling point / boiling range	> 100 °C	
Flash point	No information available	No information available
Evaporation rate	No information available	No information available
Flammability (solid, gas)	No information available	No information available
Flammability Limit in Air		No information available
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	.	<17 mmHg @ 20°C
Vapor density	<1	(air=1)
Relative density	No information available	No information available
Water solubility	No information available	No information available
Solubility in other solvents	No information available	No information available
Partition coefficient	No information available	No information available
Autoignition temperature	No information available	No information available
Decomposition temperature	No information available	No information available
Kinematic viscosity	No information available	No information available
Dynamic viscosity	No information available	No information available

Other Information

Softening point No information available
Molecular weight No information available
VOC Content (%) No information available
Density No information available
Bulk density No information available

Section 10: STABILITY AND REACTIVITY

Stability Stable under normal conditions. Stable under recommended storage conditions.

Explosion data**Sensitivity to Mechanical Impact** None.**Sensitivity to Static Discharge** None.**Possibility of hazardous reactions** None under normal processing.**Hazardous polymerization** Hazardous polymerization does not occur.**Conditions to avoid** None known based on information supplied.**Incompatible materials** None known based on information supplied.**Hazardous decomposition products** Hazardous decomposition products formed under fire conditions -. Phosphorous oxides.**Section 11: TOXICOLOGICAL INFORMATION****Acute toxicity****Information on likely routes of exposure****Product Information****Inhalation** Specific test data for the substance or mixture is not available.**Eye contact** Specific test data for the substance or mixture is not available.**Skin contact** Specific test data for the substance or mixture is not available.**Ingestion** Specific test data for the substance or mixture is not available**Symptoms** No information available.**Numerical measures of toxicity - Product Information**

13.68 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

Component identification*See section 16 for terms and abbreviations***Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation** No information available.**Serious eye damage/eye irritation** No information available.**Respiratory or skin sensitization** No information available.**Germ cell mutagenicity** No information available.**Carcinogenicity****Reproductive toxicity** No information available.**STOT - single exposure** No information available.**STOT - repeated exposure** No information available.**Aspiration hazard** No information available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity .

Unknown aquatic toxicity 13.68 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation/Accumulation No information available.

Mobility

Mobility in soil No information available.

Mobility No information available.

Other adverse effects

Other adverse effects No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

Section 14: TRANSPORT INFORMATION

ADG Not regulated

IATA Not regulated

IMDG/IMO Not regulated

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available

Section 15: REGULATORY INFORMATION

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

National regulations

Australia

See section 8 for national exposure control parameters

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

No poisons schedule number allocated

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

International Regulations

Ozone-depleting substances (ODS) None known

Persistent Organic Pollutants None known

The Rotterdam Convention None known

Section 16: ANY OTHER RELEVANT INFORMATION

Prepared by Regulatory Affairs Department

Issuing Date Jan-24-2017

Revision Date Jan-24-2017

Revision note

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

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, transporta

End of Safety Data Sheet



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Section 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product identifier**Product name** DPD 1B Free Chlorine Reagent**Product Code(s)** P-6741**Other means of identification****UN Number** 3265**Substance or Preparation** Preparation**Recommended use of the chemical and restrictions on use****Recommended Use** Use as a laboratory reagent. Industrial (not for food or food contact use). Laboratory chemicals.**Uses advised against** None**Details of manufacturer or importer**

LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
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Poisons Information Center, New Zealand: 0800 764 766

Section 2: HAZARD(S) IDENTIFICATION

GHS Classification

Skin corrosion/irritation	Category 1 - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)

Label elements

Corrosion

**Signal word**

DANGER

Hazard statements

H314 - Causes severe skin burns and eye damage.

Precautionary Statements

Prevention: Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Response: Immediately call a POISON CENTER or doctor/physician IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

Storage:

Store locked up.

Disposal:

Dispose of contents/container to an approved waste disposal plant.

Other hazards which do not result in classification

None known.

Section 3: COMPOSITION & INFORMATION ON INGREDIENTS

Substance

Not Applicable

Mixture

Chemical name	CAS #	Weight-%
Phosphorous acid	13598-36-2	<0.2
DPD Sulfate	6283-63-2	<1
Non-hazardous ingredients	Proprietary	Balance

Section 4: FIRST AID MEASURES

First Aid Measures**General advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Local emergency telephone number

Poisons Information Center, Australia: 13 11 26
Poisons Information Center, New Zealand: 0800 764 766

Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Remove and isolate contaminated clothing and shoes. Wash contaminated clothing before reuse. Consult a physician if necessary.
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Section 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

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

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating gases and vapors.

Special protective actions for fire-fighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Hazchem code 2X.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other Information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information. Prevent further leakage or spillage if

safe to do so.

Methods and material for containment and cleaning up

Methods for containment Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

Methods for cleaning up Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water.

Precautions to prevent secondary hazards

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Store away from other materials. Keep away from heat.

Incompatible materials Alkali. Metals. Strong oxidizing agents.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

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

Chemical name	Australia
Phosphorous acid 13598-36-2	-
DPD Sulfate 6283-63-2	-

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Safety glasses with side shields are recommended for medical or industrial exposures. If splashes are likely to occur, wear safety glasses with side-shields. Face protection shield.

Skin and body protection	Wear suitable protective clothing. Long sleeved clothing.
Hand protection	Wear suitable gloves. Impervious gloves. Nitrile rubber.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Environmental exposure controls	No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Appearance	Clear, colorless
Color	No information available
Odor	Odorless
Odor threshold	Not Applicable

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	1.4	
Melting point / freezing point	-	No information available
Boiling point / boiling range	No information available	No information available
Flash point	No information available	No information available
Evaporation rate	No information available	No information available
Flammability (solid, gas)	No information available	No information available
Flammability Limit in Air		No information available
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	No information available	No information available
Water solubility	Soluble in water	
Solubility in other solvents	No information available	No information available
Partition coefficient	No information available	No information available
Autoignition temperature	No information available	No information available
Decomposition temperature	No information available	No information available
Kinematic viscosity	No information available	No information available
Dynamic viscosity	No information available	No information available

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

Section 10: STABILITY AND REACTIVITY

Stability	Stable under normal conditions. Stable under recommended storage conditions.
Explosion data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.
Possibility of hazardous reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to air or moisture over prolonged periods.

Incompatible materials Alkali. Metals. Strong oxidizing agents.

Hazardous decomposition products Hazardous decomposition products. Carbon oxides (COx).

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	Specific test data for the substance or mixture is not available

Symptoms No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 57,971.00 mg/kg

- 2.46 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 2.96 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 7.02 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 7.02 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 7.02 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component identification

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Phosphorous acid	= 1895 mg/kg (Rat)	Not Established	Not Established
DPD Sulfate	Not Established	Not Established	Not Established

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	May cause skin irritation.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity .

Unknown aquatic toxicity 2.46 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Phosphorous acid	Not Established	6980 - 9784: 96 h Brachydanio rerio mg/L LC50 static	Not Established	Not Established
DPD Sulfate	Not Established	Not Established	Not Established	Not Established

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation/Accumulation No information available.

Chemical name	Log Pow
Phosphorous acid	Not Established
DPD Sulfate	Not Established

Mobility

Mobility in soil No information available.

Mobility No information available.

Other adverse effects

Other adverse effects No information available.

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine disrupting potential
Phosphorous acid	Not Established	Not Established	Not Established
DPD Sulfate	Not Established	Not Established	Not Established

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

Section 14: TRANSPORT INFORMATION

ADG

UN Number 3265
Proper shipping name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Phosphorous Acid)

Hazard Class	8
Packing group	III
Hazchem code	2X
<u>IATA</u>	
UN-No	3265
Proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S (Phosphorous acid)
Hazard Class	8
Packing group	III
<u>IMDG/IMO</u>	
UN-No	3265
Proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S (Phosphonic acid)
Hazard Class	8
Packing group	III

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available

Section 15: REGULATORY INFORMATION

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

National regulations

Australia

See section 8 for national exposure control parameters

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

No poisons schedule number allocated

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

International Regulations

Ozone-depleting substances (ODS) None known

Persistent Organic Pollutants None known

The Rotterdam Convention None known

Section 16: ANY OTHER RELEVANT INFORMATION

Prepared by Regulatory Affairs Department

Issuing Date Jan-24-2017

Revision Date Jan-24-2017

Revision note

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Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

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, transporta

End of Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** DPD 3**Other means of identification****Product Code(s)** P-6743**Recommended use of the chemical and restrictions on use****Recommended Use** Laboratory chemicals. Industrial (not for food or food contact use). Use as a laboratory reagent.**Details of the supplier of the safety data sheet****Manufacturer Address**LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748**Emergency telephone numbers**

(CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION**OSHA Regulatory Status**

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

EMERGENCY OVERVIEW**Appearance** Clear, colorless **Physical state** liquid **Odor** Odorless**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep out of reach of children.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF SWALLOWED: Drink 1 or 2 glasses of water. Call a physician immediately.

Storage:

Store in a well-ventilated place. Keep cool.

Unknown Acute Toxicity

20% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS*

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical name	CAS No.	Weight-%
Buffers	0000	<1
Potassium iodide*	7681-11-0	<30

4. FIRST AID MEASURES

First Aid Measures

General advice	Do not get in eyes, on skin, or on clothing.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin contact	Take off contaminated clothing and wash before reuse. Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a physician.
Inhalation	Remove to fresh air. Not expected.
Ingestion	Drink 1 or 2 glasses of water. Consult a physician if necessary. Never give anything by mouth to an unconscious person.
<u>Self-protection of the first aider</u>	Use personal protection recommended in Section 8.
Notes to Physician	For additional information, see Safety Data Sheet. Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

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

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, protective equipment and emergency procedures

Personal precautions	Use personal protection recommended in Section 8.
Environmental precautions	See Section 12 for additional Ecological Information. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for containment	Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).
Methods for cleaning up	After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling	Handle in accordance with good industrial hygiene and safety practice. Do not taste or swallow. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes
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or clothing.

Conditions for safe storage, including any incompatibilities

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep out of the reach of children. Protect from sunlight.

Incompatible Products Not Applicable.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Buffers 0000	*-	*-	Not Established
Potassium iodide* 7681-11-0	TWA: 0.01 ppm inhalable fraction and vapor	*-	Not Established

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles).

Skin and body protection Gloves & Lab Coat. Protective gloves. Nitrile rubber.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid
Appearance Clear, colorless
Odor Odorless

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	10.5	
Melting point / freezing point	No information available	
Boiling point / boiling range	100 °C / 212 °F	
Flash point	Not Applicable	
Evaporation rate		
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	.	<17 mmHg @ 20°C (air=1)
Vapor density	<1	
Specific gravity	No information available	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	None known based on information supplied.
Incompatible materials	Not Applicable.
Hazardous decomposition products	Iodine.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Component identification**

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Buffers 0000	Not Established	Not Established	Not Established
Potassium iodide* 7681-11-0	Not Established	Not Established	Not Established

Information on toxicological effects

Chemical name	ACGIH	IARC	NTP	OSHA
Buffers 0000	Not Established	Not Established	Not Established	Not Established
Potassium iodide* 7681-11-0	Not Established	Not Established	Not Established	Not Established

12. ECOLOGICAL INFORMATION**Ecotoxicity****Unknown Aquatic Toxicity** 20 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Buffers 0000	Not Established	Not Established	Not Established
Potassium iodide* 7681-11-0	Not Established	Not Established	Not Established

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical name	Log Pow
Buffers 0000	Not Established
Potassium iodide* 7681-11-0	Not Established

13. DISPOSAL CONSIDERATIONS

Disposal Methods Dispose of waste product or used containers according to local regulations. Can be disposed as waste water, when in compliance with local regulations.

Contaminated packaging Do not reuse empty containers.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Buffers 0000	Not Established	-	Not Established	Not Established
Potassium iodide* 7681-11-0	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Buffers 0000	Not Established	Not Established	Not Established	Not Established
Potassium iodide* 7681-11-0	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Buffers 0000	*-
Potassium iodide* 7681-11-0	*-

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION**International Inventories**

TSCA Complies

DSL/NDSL Complies

EINECS/ELINCS Complies

ENCS Complies

IECSC Complies

KECL Complies

PICCS Complies

AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US 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

Chemical name	SARA 313 - Threshold Values %
Buffers 0000	Not Established
Potassium iodide* 7681-11-0	Not Established

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

CWA (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
Buffers 0000	Not Established	Not Established	Not Established	Not Established
Potassium iodide* 7681-11-0	Not Established	Not Established	Not Established	Not Established

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	CERCLA/SARA RQ	RQ
Buffers 0000	*-	Not Established	-
Potassium iodide* 7681-11-0	*-	Not Established	-

US State Regulations

Chemical name	California Proposition 65
Buffers 0000	Not Established
Potassium iodide* 7681-11-0	Not Established

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Buffers 0000	Not Established	Not Established	Not Established
Potassium iodide* 7681-11-0	Not Established	Not Established	Not Established

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances

16. OTHER INFORMATION

NFPA

Health hazard 1

Flammability 0

Instability 0

Physical and Chemical
Hazards N/A



Health Hazard	0
Fire Hazard	0
Reactivity	0

Prepared by
Issuing Date
Reason for revision

Regulatory Affairs Department
Jan-24-2017

Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** PH PHENOL RED INDICATOR**Other means of identification****Product Code(s)** 7037**Recommended use of the chemical and restrictions on use****Recommended Use** Use as a laboratory reagent. Industrial (not for food or food contact use). Laboratory chemicals.**Details of the supplier of the safety data sheet****Manufacturer Address**LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748**Emergency telephone numbers**

(CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION**OSHA Regulatory Status**

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

EMERGENCY OVERVIEW**Appearance** red transparent **Physical state** liquid **Odor** Slight medicinal**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep out of reach of children.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF SWALLOWED: Drink 1 or 2 glasses of water. Call a physician immediately.

Storage:

Store in a well-ventilated place. Keep cool.

Other Hazards

Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS*

Sodium hydroxide and/or Sulfuric acid added for pH adjustment
LaMotte Company proprietary formulation under the State of New Jersey Trade Secret Protection Law, assigned the NJTSRN 80100291-5074p, and may be disclosed only in a medical emergency

4. FIRST AID MEASURES

First Aid Measures

General advice	Do not get in eyes, on skin, or on clothing. Show this safety data sheet to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. If irritation persists or develops, contact a physician.
Skin contact	Wash skin with soap and water. If irritation develops or persists, consult physician.
Inhalation	Remove to fresh air. If symptoms persist, call a physician.
Ingestion	Drink large quantity of water. If symptoms persist or develop contact physician.
<u>Self-protection of the first aider</u>	Use personal protective equipment. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Water spray, dry chemical, carbon dioxide (CO₂), or foam.

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, protective equipment and emergency procedures

Personal precautions	See section 8.
Environmental precautions	See Section 12 for additional Ecological Information. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for containment	Soak up with inert absorbent material, containerize, and hold for disposal.
Methods for cleaning up	After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling	Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not taste or swallow. Do not eat, drink, or smoke when using this product.
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Conditions for safe storage, including any incompatibilities

Storage:	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from
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direct sunlight.

Incompatible Products None known.**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parametersAppropriate engineering controls**Engineering Measures** None under normal use conditions.Individual protection measures, such as personal protective equipment**Eye/Face Protection** Wear safety glasses with side shields (or goggles).**Skin and body protection** Repeated or prolonged contact: Wear protective gloves/clothing.**Respiratory protection** Maintain adequate ventilation.**Hygiene Measures** Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday.**9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties

Physical state	liquid	Odor	Slight medicinal
Appearance	red transparent		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	8	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	Not Applicable	
Evaporation rate		
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	No information available	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of use and storage.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Protect from light.
Incompatible materials	None known.
Hazardous decomposition products	May produce the following when heated to decomposition: Carbon oxides (COx).

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation	Not an expected route of exposure.
Eye contact	May cause temporary eye irritation.
Skin contact	May cause irritation.
Ingestion	May cause gastrointestinal discomfort if consumed in large amounts.

Component identification**Information on toxicological effects**

*IARC (International Agency for Research on Cancer)
Group 3 - Not classifiable as to its carcinogenicity to humans*

ATEmix (oral)	50,000.00 mg/kg
ATEmix (inhalation-dust/mist)	250.50 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Very toxic to aquatic life with long lasting effects

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods	Dispose of waste product or used containers according to local regulations.
Contaminated packaging	Do not reuse empty containers.

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated

<u>ICAO</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated
<u>RID</u>	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US 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

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances

16. OTHER INFORMATION**NFPA**

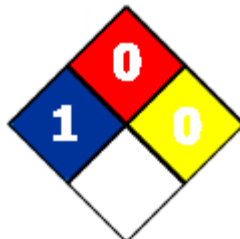
Health hazard 1

Flammability 0

Instability 0

Physical and Chemical
Hazards N/A

Health hazard 1



Health Hazard	1
Fire Hazard	0
Reactivity	0

Prepared by**Issuing Date****Reason for revision****Disclaimer**

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

Regulatory Affairs Department

Jan-24-2017

End of Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** Total Alkalinity Reagent**Other means of identification****Product Code(s)** 7038**Recommended use of the chemical and restrictions on use****Recommended Use** Use as a laboratory reagent. Industrial (not for food or food contact use). Laboratory chemicals.**Details of the supplier of the safety data sheet****Manufacturer Address**LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748**Emergency telephone numbers**

(CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION**OSHA Regulatory Status**

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

EMERGENCY OVERVIEW**Appearance** dark amber **Physical state** liquid **Odor** Odorless**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep out of reach of children.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF SWALLOWED: Drink 1 or 2 glasses of water. Call a physician immediately.

Storage:

Store in a well-ventilated place. Keep cool.

Other Hazards

Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS*

Chemical name	CAS No.	Weight-%
Phenol	108-95-2	0.2

4. FIRST AID MEASURES

First Aid Measures

General advice	Do not get in eyes, on skin, or on clothing.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Wash skin with soap and water. Consult a physician.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. Call a physician immediately.
Ingestion	Do NOT induce vomiting. Drink plenty of water. Consult a physician. Never give anything by mouth to an unconscious person.
<u>Self-protection of the first aider</u>	Use personal protective equipment. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Water spray, dry chemical, carbon dioxide (CO₂), or foam.

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, protective equipment and emergency procedures

Personal precautions	See section 8. Use personal protective equipment. Avoid contact with skin, eyes, and inhalation of vapors.
Environmental precautions	See Section 12 for additional Ecological Information. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for containment	Absorb/Cover spill with sodium bicarbonate or sodium carbonate to neutralize, then place in a chemical waste container for later disposal. Dispose according to local regulations, if permitted dissolve in water and rinse to drain.
Methods for cleaning up	After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling	Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not taste or swallow. Do not eat, drink, or smoke when using this product.
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Conditions for safe storage, including any incompatibilities

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from oxidizing agents. Keep away from direct sunlight. Keep out of the reach of children.

Incompatible Products Strong oxidizing agents. NITRIC ACID.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
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

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves/clothing.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state liquid
Appearance dark amber
Odor Odorless

Property **Values** **Remarks • Method**

pH
Melting point / freezing point No information available
Boiling point / boiling range No information available
Flash point Not Applicable
Evaporation rate
Flammability (solid, gas) No information available
Flammability Limit in Air
Upper flammability limit: No information available
Lower flammability limit: No information available
Vapor pressure No information available
Vapor density No information available
Specific gravity No information available
Water solubility No information available
Solubility in other solvents No information available
Partition coefficient No information available
Autoignition temperature No information available

Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of use and storage.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat. Direct sunlight. Incompatible products.
Incompatible materials	Strong oxidizing agents. NITRIC ACID.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions -. Carbon oxides (COx).

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Component identification**

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Phenol 108-95-2	= 317 mg/kg (Rat) = 340 mg/kg (Rat)	= 630 mg/kg (Rabbit)	= 316 mg/m ³ (Rat) 4 h

Information on toxicological effects

Chemical name	ACGIH	IARC	NTP	OSHA
Phenol 108-95-2	Not Established	Group 3	Not Established	Not Established

Chronic toxicity No information available.

ATEmix (oral)	38,554.00 mg/kg
ATEmix (inhalation-dust/mist)	127.81 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Very toxic to aquatic life with long lasting effects

Unknown Aquatic Toxicity 2.608 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Phenol 108-95-2	0.0188 - 0.1044: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 187 - 279: 72 h Desmodesmus subspicatus mg/L EC50 static 46.42: 96 h Pseudokirchneriella subcapitata mg/L EC50	11.9 - 25.3: 96 h Lepomis macrochirus mg/L LC50 flow-through 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 23.4 - 36.6: 96 h Oryzias latipes mg/L LC50 static 33.9 - 43.3: 96 h Oryzias latipes mg/L LC50 flow-through 34.09 - 47.64: 96 h Poecilia reticulata mg/L LC50 static 4.23 - 7.49: 96 h	10.2 - 15.5: 48 h Daphnia magna mg/L EC50 4.24 - 10.7: 48 h Daphnia magna mg/L EC50 Static

		Oncorhynchus mykiss mg/L LC50 semi-static 5.0 - 12.0: 96 h Oncorhynchus mykiss 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 0.00175: 96 h Cyprinus carpio mg/L LC50 semi-static 11.5: 96 h Lepomis macrochirus mg/L LC50 semi-static 13.5: 96 h Lepomis macrochirus mg/L LC50 static 27.8: 96 h Brachydanio rerio mg/L LC50 31: 96 h Poecilia reticulata mg/L LC50 semi-static 32: 96 h Pimephales promelas mg/L LC50	
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Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical name	Log Pow
Phenol 108-95-2	1.47

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose according to federal, state, and local regulations. If permitted, neutralize reagent with sodium bicarbonate/sodium carbonate, add slurry to large volume of water to dilute, rinse to drain with excess water.

Contaminated packaging

Do not reuse empty containers.

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 Included in waste stream: K060	Not Established	U188

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Phenol 108-95-2	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Phenol 108-95-2	Toxic Corrosive

14. TRANSPORT INFORMATION

DOT Not regulated**TDG** Not regulated**MEX** Not regulated**ICAO** Not regulated**IATA** Not regulated

IMDG/IMO	Not regulated
RID	Not regulated
ADR	Not regulated
ADN	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Complies
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US 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	SARA 313 - Threshold Values %
Phenol 108-95-2	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated 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 108-95-2	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	CERCLA/SARA RQ	RQ
Phenol 108-95-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

Chemical name	California Proposition 65
Phenol 108-95-2	Not Established

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Phenol 108-95-2	X	X	X

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances

Chemical name	CPSC (Consumer Product Safety Commission) - Specially Regulated Substances
Phenol 108-95-2	Add POISON to label, 16 CFR 1500.129

16. OTHER INFORMATION**NFPA**

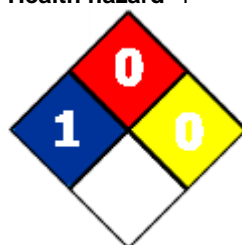
Health hazard 1

Flammability 0

Instability 0

Physical and Chemical
Hazards N/A

Health hazard 1



Health Hazard	1
Fire Hazard	0
Reactivity	0

Prepared by
Issuing Date
Revision Date
Reason for revision
Disclaimer

Regulatory Affairs Department
Jan-24-2017
May-11-2015

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** CH1 Calcium Hardness**Other means of identification****Product Code(s)** 7042**Recommended use of the chemical and restrictions on use****Recommended Use** Use as a laboratory reagent. Laboratory chemicals. Industrial (not for food or food contact use).**Details of the supplier of the safety data sheet****Manufacturer Address**LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748**Emergency telephone numbers**

(CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3

EMERGENCY OVERVIEW**DANGER****Hazard statements**

Causes severe skin burns and eye damage. May cause respiratory irritation. May cause drowsiness or dizziness.



Appearance Clear Colorless

Physical state liquid

Odor Slight

Precautionary Statements - Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not taste or swallow. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Keep out of the reach of children.

Response: Immediately call a poison center or physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage:

Keep container tightly closed and in a well-ventilated place.

Disposal:

Dispose of contents/container to an approved waste disposal plant.

Unknown Acute Toxicity

22.26% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS*

Chemical name	CAS No.	Weight-%
Boric acid	10043-35-3	3
Ethanolamine	141-43-5	10

4. FIRST AID MEASURES**First Aid Measures****General advice**

Do not get in eyes, on skin, or on clothing.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, call a physician.

Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and wash before reuse. If symptoms persist, call a physician.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Ingestion	Drink plenty of water. Consult a physician if necessary.
<u>Self-protection of the first aider</u>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protection recommended in Section 8.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Water spray, dry chemical, carbon dioxide (CO₂), or foam.

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, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists.
Environmental precautions	See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment	Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).
Methods for cleaning up	After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling	Handle in accordance with good industrial hygiene and safety practice. Do not taste or swallow. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.
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Conditions for safe storage, including any incompatibilities

Storage:	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from incompatible materials such as cyanides or sulfides. Store away from strong bases or metals. Do not store near combustible materials. Keep out of the reach of children.
Incompatible Products	Water. Strong bases. Metals. Combustible materials. Cyanides. Sulfides. Formaldehyde.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Boric acid	STEL: 6 mg/m ³ inhalable fraction	*	Not Established

10043-35-3	TWA: 2 mg/m ³ inhalable fraction		
Ethanolamine 141-43-5	STEL: 6 ppm TWA: 3 ppm	TWA: 3 ppm TWA: 6 mg/m ³ (vacated) TWA: 3 ppm (vacated) TWA: 8 mg/m ³ (vacated) STEL: 6 ppm (vacated) STEL: 15 mg/m ³	IDLH: 30 ppm TWA: 3 ppm TWA: 8 mg/m ³ STEL: 6 ppm STEL: 15 mg/m ³

Appropriate engineering controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles). If splashes are likely to occur. Face protection shield. Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection Protective gloves.

Respiratory protection None required under normal usage. Maintain adequate ventilation.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Take off contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid
Appearance Clear Colorless
Odor Slight

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	9.6	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	Not Applicable	
Evaporation rate		
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	No information available	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point No information available
Molecular weight No information available
VOC Content (%) No information available
Density No information available
Bulk density No information available

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Hazardous Reactions	Reacts violently with water. Contact with metals may evolve flammable hydrogen gas.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat. Moisture. Incompatible Products.
Incompatible materials	Water. Strong bases. Metals. Combustible materials. Cyanides. Sulfides. Formaldehyde.
Hazardous decomposition products	Hydrogen gas. Sulfur oxides (SOx).

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Component identification**

Chemical name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Boric acid 10043-35-3	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 0.16 mg/L (Rat) 4 h
Ethanolamine 141-43-5	= 1720 mg/kg (Rat)	= 1000 mg/kg (Rabbit) = 1 mL/kg (Rabbit)	Not Established

Information on toxicological effects

Chemical name	ACGIH	IARC	NTP	OSHA
Boric acid 10043-35-3	Not Established	Not Established	Not Established	Not Established
Ethanolamine 141-43-5	Not Established	Not Established	Not Established	Not Established

ATEmix (oral)	10,499.00 mg/kg
ATEmix (dermal)	9,442.00 mg/kg
ATEmix (inhalation-dust/mist)	13.16 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Harmful to aquatic life with long lasting effects

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Boric acid 10043-35-3	Not Established	1020: 72 h Carassius auratus mg/L LC50 flow-through	115 - 153: 48 h Daphnia magna mg/L EC50
Ethanolamine 141-43-5	15: 72 h Desmodesmus subspicatus mg/L EC50	114 - 196: 96 h Oncorhynchus mykiss mg/L LC50 static 300 - 1000: 96 h Lepomis macrochirus mg/L LC50 static 227: 96 h Pimephales promelas mg/L LC50 flow-through 3684: 96 h Brachydanio rerio mg/L LC50 static 200: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	65: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

When released into the soil, this material may leach into ground water. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet or dry deposition.

Chemical name	Log Pow
Boric acid	-0.757

10043-35-3	
Ethanolamine 141-43-5	-1.91

13. DISPOSAL CONSIDERATIONS

Disposal Methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Dispose of waste product or used containers according to local regulations. Should not be released into the environment.

Contaminated packaging Do not reuse empty containers.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Boric acid 10043-35-3	Not Established	-	Not Established	Not Established
Ethanolamine 141-43-5	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Boric acid 10043-35-3	Not Established	Not Established	Not Established	Not Established
Ethanolamine 141-43-5	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Boric acid 10043-35-3	*-
Ethanolamine 141-43-5	*-

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies

DSL/NDL Does not comply

EINECS/ELINCS Does not comply

ENCS Does not comply

IECSC Complies

KECL Does not comply

PICCS Complies

AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US 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

Chemical name	SARA 313 - Threshold Values %
Boric acid 10043-35-3	Not Established
Ethanolamine 141-43-5	Not Established

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

CWA (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
Boric acid 10043-35-3	Not Established	Not Established	Not Established	Not Established
Ethanolamine 141-43-5	Not Established	Not Established	Not Established	Not Established

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	CERCLA/SARA RQ	RQ
Boric acid 10043-35-3	*-	Not Established	-
Ethanolamine 141-43-5	*-	Not Established	-

US State Regulations

Chemical name	California Proposition 65
Boric acid 10043-35-3	Not Established
Ethanolamine 141-43-5	Not Established

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Boric acid 10043-35-3	X	Not Established	Not Established
Ethanolamine 141-43-5	X	X	X

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances**16. OTHER INFORMATION**

NFPA Health hazard 1 Flammability 0 Instability 1 Physical and Chemical Hazards N/A

Health hazard 2 Flammability 0 Stability 1



Health Hazard	2
Fire Hazard	0
Reactivity	1

Prepared by Regulatory Affairs Department
Issuing Date Jan-24-2017
Revision Date Jan-07-2016

Revision note Boric acid classification differs between the US and EU. It is not classified in the US but it is in the EU. Boric acid is listed on the "List of Substances of Very High Concern (SVHC)" according to Regulation (EC) No. 1907/2006 (REACH) Repr. 1B; H360FD: C >5.5%

Disclaimer

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End of Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** Calcium Hardness Indicator**Other means of identification****Product Code(s)** 7041**Recommended use of the chemical and restrictions on use****Recommended Use** Use as a laboratory reagent. Laboratory chemicals. Industrial (not for food or food contact use).**Details of the supplier of the safety data sheet****Manufacturer Address**LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748**Emergency telephone numbers**

(CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION**OSHA Regulatory Status**

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

EMERGENCY OVERVIEW**Appearance** Clear Colorless **Physical state** liquid **Odor** None**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep out of reach of children.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF SWALLOWED: Drink 1 or 2 glasses of water. Call a physician immediately.

Storage:

Store in a well-ventilated place. Keep cool.

Other Information May cause skin and eye irritation**3. COMPOSITION/INFORMATION ON INGREDIENTS***

4. FIRST AID MEASURES

First Aid Measures

General advice	Do not get in eyes, on skin, or on clothing.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin contact	Wash skin with soap and water. If symptoms persist, call a physician.
Inhalation	Remove to fresh air. Not an expected route of exposure.
Ingestion	Drink 1 or 2 glasses of water. Consult a physician if necessary.
<u>Self-protection of the first aider</u>	Use personal protection recommended in Section 8. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Water spray, fog or alcohol-resistant foam. Dry chemical. Carbon dioxide (CO₂).

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, protective equipment and emergency procedures

Personal precautions	Use personal protection recommended in Section 8.
Environmental precautions	See Section 12 for additional Ecological Information. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for containment	Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Dispose according to federal, state, and local regulations.
Methods for cleaning up	After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling	Handle in accordance with good industrial hygiene and safety practice. Do not taste or swallow. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.
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Conditions for safe storage, including any incompatibilities

Storage:	Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep out of the reach of children.
Incompatible Products	Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Appropriate engineering controls

Engineering Measures Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles).

Skin and body protection Protective gloves.

Respiratory protection None required under normal usage. Maintain adequate ventilation.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	None
Appearance	Clear Colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
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pH	6	
Melting point / freezing point	No information available	
Boiling point / boiling range	ca 101 °C / 214 °F	
Flash point	Not Applicable	
Evaporation rate		
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	No information available	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Temperature extremes.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Thermal decomposition can lead to release of irritating gases and vapors. Carbon oxides (COx). Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Component identification

Information on toxicological effects

Carcinogenicity Contains no ingredient listed as a carcinogen.

ATEmix (oral) 2,666,667.00 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of waste product or used containers according to local regulations. 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 reuse empty containers.

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated
<u>ICAO</u>	Not regulated
<u>IATA</u>	Not regulated

<u>IMDG/IMO</u>	Not regulated
<u>RID</u>	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Does not comply
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US 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

CWA (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)

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

US State Regulations

U.S. State Right-to-Know Regulations

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances

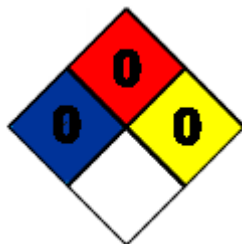
16. OTHER INFORMATION

NFPA

Health hazard 0

Flammability 0

Instability 0

Physical and Chemical
Hazards N/A

Health Hazard	0
Fire Hazard	0
Reactivity	0

Prepared by
Issuing Date
Disclaimer

Regulatory Affairs Department
Jan-24-2017

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet