SAFETY DATA SHEET

Issuing Date: 21-Dec-2017 **Version** 1

Henry Schein® HANDI-CHEM Developer Concentrate

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Henry Schein® HANDI-CHEM Developer Concentrate

Product code 27280A-60

Product Use X-ray processing.

Supplier Address
Henry Schein®, Inc.
135 Duryea Road
Melville, NY 11747

Company Phone Number 800-472-4346

Emergency Telephone Transport-CHEMTREC Inside NA: 800-424-9300
Transport CHEMTREC Outside NA: 703-527-3887

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 2

GHS Label elements, including precautionary statements

Danger

Hazard Statements
Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
Suspected of causing genetic defects
Suspected of causing cancer

Precautionary Statements

Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves/protective clothing/eye protection/face protection

Response
IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention

Storage
Store locked up

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

Hazards not otherwise classified (HNOC)
Not classified

Other hazards
Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
HYDROQUINONE	123-31-9	1-5%
POTASSIUM HYDROXIDE	1310-58-3	1-5%

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice Do not get in eyes, on skin, or on clothing. May cause allergic skin reaction. If symptoms persist, call a physician.

Eye contact Do not rub affected area. Keep eye wide open while rinsing. Call a physician immediately. In case of contact with substance, immediately flush eyes with running water for at least 30 minutes.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion If swallowed, do not induce vomiting - seek medical advice.

Protection of First-aiders Use personal protective equipment. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Most important symptoms/effects, acute and delayed

May cause redness, itching, and pain. Burning feeling and temporary redness. May cause allergic skin reaction.

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

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

None known.

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. May cause sensitization by skin contact.

Hazardous Combustion Products
Carbon oxides. Sulfur oxides. Potassium oxides. Nitrogen oxides (NOx).

Explosion Data

Sensitivity to Mechanical Impact none

Sensitivity to Static Discharge 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, protective equipment and emergency procedures

Use personal protective equipment. Avoid contact with the skin and the eyes. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Do not allow material to contaminate ground water system. Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use personal protective equipment. Cover liquid spill with sand, earth or other noncombustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

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

7. HANDLING AND STORAGE

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs
HYDROQUINONE	TWA: 1 mg/m³	TWA: 2 mg/m³ (vacated) TWA: 2 mg/m³	IDLH: 50 mg/m³ Ceiling: 2 mg/m³ 15 min	
POTASSIUM HYDROXIDE	Ceiling: 2 mg/m³	(vacated) Ceiling: 2 mg/m³	Ceiling: 2 mg/m³	

Exposure controls

Engineering Measures Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tightly fitting safety goggles. Face-shield.

Skin and body protection Wear protective gloves/clothing.

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.

General Hygiene Considerations When using do not eat, drink or smoke. Wear suitable gloves and eye/face protection. Take off contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. For environmental protection, remove and wash all contaminated protective equipment before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, Colorless	**Odor**	Odorless
Odor Threshold	Not available	**Physical State @20°C**	Liquid
pH	10.9		
Specific Gravity	1.23	**Molecular Weight**	Not available
Flash point	> 201 °F / > 94 °C	**Autoignition temperature**	Not available
Decomposition temperature	Not available	**Boiling point / boiling range**	> 212 °F / > 100 °C
Melting point / melting range	Not available	**Freezing Point**	Not available

Flammability Limit in Air	Not available		
Oxidizing Properties	Not available	**Explosive Properties**	Not available
Solubility	Soluble in water	**Partition coefficient**	Not available
Evaporation rate	Not available	**Vapor Pressure**	Not available
Vapor density	Not available	**Density**	Not available
VOC (lb/gal)	0	**VOC (g/l)**	0
Dynamic viscosity	Not available		

10. STABILITY AND REACTIVITY

Reactivity

Stable under recommended storage conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Excessive heat. Freezing.

Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon oxides. Sulfur oxides. Potassium oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Acute toxicity

Inhalation	Inhalation of vapors in high concentration may cause irritation of respiratory system.
Eyes	Corrosive to the eyes and may cause irreversible eye damage.
Skin	Irritating to skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	Ingestion may cause stomach discomfort.

Component Information

Chemical Name	Oral LD50	Dermal LD50	LC50 (lethal concentration)
HYDROQUINONE	= 298 mg/kg (Rat)	= 74800 mg/kg (Rabbit)	
POTASSIUM HYDROXIDE	214 mg/kg (Rat)		

Information on toxicological effects

No information available.

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

Irritation Irritating to skin.
Corrosivity Corrosive to eyes. Risk of serious damage to eyes.
Sensitization May cause sensitization by skin contact.
Mutagenic Effects Contains a known or suspected mutagen.
Reproductive Toxicity No information available.
Carcinogenicity Contains a known or suspected carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
HYDROQUINONE	A3	Group 3		

ACGIH: (American Conference of Governmental Industrial Hygienists)
A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
A4 - Not Classifiable as a Human Carcinogen

IARC: (International Agency for Research on Cancer)
Group 1: Carcinogenic to humans
Group 2A: Probably carcinogenic to humans
Group 2B: Possibly carcinogenic to humans
Group 3: Not classifiable as to its carcinogenicity to humans

NTP: (National Toxicity Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA: (Occupational Safety & Health Administration)
X - Present

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organ Effects Central nervous system (CNS), Eyes, Respiratory system, Skin.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

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

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ATEmix (oral) 2713 mg/kg
ATEmix (dermal) 24024 mg/kg

ATE: Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

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Chemical Name	Algae toxicity	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
HYDROQUINONE		Pimephales promelas: 0.1 - 0.18 mg/L at 96 h Pimephales promelas: 0.044 mg/L at 96 h		

Persistence and degradability

No information available.

Bioaccumulation

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Chemical Name	Octanol Water Partition Coefficient (log pow)
HYDROQUINONE	0.5
POTASSIUM HYDROXIDE	0.65 0.83

Mobility

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Dispose of in accordance with local regulations.

Contaminated packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated.

MEX Not regulated

ICAO Not regulated

IATA Not regulated

IMDG Not regulated

ADR/RID Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Yes
DSL/NDSL	Yes
PICCS	Yes
EINECS/ELINCS	Yes
ENCS	Yes
IECSC	Yes
KECL	Yes
AICS	Yes

***Yes - All component(s) of this product are included or are exempt from listing on the inventory.**

***No - Indicates the component(s) of this product are either not listed or have not been determined to be listed on the inventory.**

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

U.S. Federal Regulations

TSCA Sections 4, 5 and 12(b)

This product does not contain any chemicals regulated by TSCA Sections 4, 5 or 12(b).

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	SARA 313 - Threshold Values %	Weight-%
HYDROQUINONE	123-31-9	1.0	1-5%

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 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
POTASSIUM HYDROXIDE	1000 lb			X

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):.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
HYDROQUINONE	100	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ
POTASSIUM HYDROXIDE	1000		RQ 1000 lb final RQ RQ 454 kg final RQ

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

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Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
HYDROQUINONE	X	X	X	X	X

POTASSIUM HYDROXIDE	X	X	X		X

International Regulations

Canada - NDSL
This product does not contain any NDSL chemicals.

Mexico - Grade
Slight risk, Grade 1

Mexico - Carcinogen Status and Exposure Limits
No information available

Other Regulations
No information available

16. OTHER INFORMATION

NFPA	**Health Hazard** 3	**Flammability** 1	**Instability** 0	**Physical and chemical hazards** -
HMIS	**Health Hazard** 3*	**Flammability** 1	**Physical Hazard** 0	**Personal protection** C

Prepared By Environment, Health and Safety, phone: 800-472-4346

Revision Date 21-Dec-2017

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.**

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SAFETY DATA SHEET

Issuing Date: 21-Dec-2017 **Version** 1

Henry Schein® HANDI-CHEM Fixer Concentrate

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Henry Schein® HANDI-CHEM Fixer Concentrate

Product code 27280B-60

Product Use X-ray processing.

Supplier Address
Henry Schein®, Inc.
135 Duryea Road
Melville, NY 11747

Company Phone Number 800-472-4346

Emergency Telephone Transport-CHEMTREC Inside NA: 800-424-9300
Transport CHEMTREC Outside NA: 703-527-3887

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

GHS Label elements, including precautionary statements

Danger

Hazard Statements
Causes skin irritation
Causes serious eye damage

Precautionary Statements

Prevention
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse

Storage
Not applicable

Disposal
Not applicable

Hazards not otherwise classified (HNOC)
Not classified

Other hazards
Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
SODIUM METABISULFITE	7681-57-4	3-7%
ACETIC ACID	64-19-7	3-7%
BORAX 10 MOL	1303-96-4	1-5%
ALUMINUM SULFATE	10043-01-3	0.5-1.5%

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray. If symptoms persist, call a physician.

Eye contact In case of contact with substance, immediately flush eyes with running water for at least 30 minutes. Keep eye wide open while rinsing. Do not rub affected area. Call a physician immediately.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion If swallowed, do not induce vomiting - seek medical advice.

Protection of First-aiders Use personal protective equipment.

Most important symptoms/effects, acute and delayed

Burning feeling and temporary redness. May cause redness, itching, and pain.

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

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

None known.

Specific hazards arising from the chemical

Causes eye burns. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products
Carbon oxides. Nitrogen oxides (NOx). Sodium oxides. Sulfur oxides. Ammonia.

Explosion Data

Sensitivity to Mechanical Impact none

Sensitivity to Static Discharge 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, protective equipment and emergency procedures

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

Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use personal protective equipment. Cover liquid spill with sand, earth or other noncombustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs
SODIUM METABISULFITE	TWA: 5 mg/m³	(vacated) TWA: 5 mg/m³	TWA: 5 mg/m³	
ACETIC ACID	STEL: 15 ppm TWA: 10 ppm	TWA: 10 ppm TWA: 25 mg/m³ (vacated) TWA: 10 ppm (vacated) TWA: 25 mg/m³	IDLH: 50 ppm TWA: 10 ppm TWA: 25 mg/m³ STEL: 15 ppm STEL: 37 mg/m³	
BORAX 10 MOL	STEL: 6 mg/m³ inhalable particulate matter TWA: 2 mg/m³ inhalable particulate matter	(vacated) TWA: 10 mg/m³	TWA: 5 mg/m³	
ALUMINUM SULFATE		(vacated) TWA: 2 mg/m³ Al Aluminum	TWA: 2 mg/m³ Al	

Exposure controls

Engineering Measures Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tightly fitting safety goggles. Face-shield.

Skin and body protection Wear protective gloves/clothing.

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.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	clear, pale yellow	**Odor**	Acetic, Vinegar-like
Odor Threshold	Not available	**Physical State @20°C**	Aqueous Solution
pH	5.0		
Specific Gravity	1.28	**Molecular Weight**	Not available
Flash point	> 201 °F / > 94 °C	**Autoignition temperature**	Not available
Decomposition temperature	Not available	**Boiling point / boiling range**	212 °F / 100 °C
Melting point / melting range	Not available	**Freezing Point**	Not available
Flammability Limit in Air	Not available		
Oxidizing Properties	Not available	**Explosive Properties**	Not available
Solubility	Soluble in water	**Partition coefficient**	Not available
Evaporation rate	Not available	**Vapor Pressure**	Not available
Vapor density	Not available	**Density**	Not available
VOC (lb/gal)	0	**VOC (g/l)**	0
Dynamic viscosity	Not available		

10. STABILITY AND REACTIVITY

Reactivity

Stable under recommended storage conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Excessive heat. Freezing. This product contains an ammonia compound. Do not allow this solution to come in contact with household or industrial bleaches (Sodium Hypochlorite). Mixing of these chemicals can result in the release of hazardous or toxic gases. Inhalation of these gases may cause severe respiratory irritation.

Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases. Sodium hypochlorite.

Hazardous Decomposition Products

Carbon oxides. Nitrogen oxides (NOx). Sodium oxides. Ammonia. Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Acute toxicity

Inhalation	Inhalation of vapors in high concentration may cause irritation of respiratory system.
Eyes	Corrosive to the eyes and may cause irreversible eye damage.
Skin	Irritating to skin.
Ingestion	Ingestion may cause stomach discomfort.

Component Information

Chemical Name	Oral LD50	Dermal LD50	LC50 (lethal concentration)
SODIUM METABISULFITE	= 1310 mg/kg (Rat)	> 2 g/kg (Rat)	
ACETIC ACID	600 mg/kg (Rabbit) [NZ CCID]	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h
BORAX 10 MOL	= 3493 mg/kg (Rat) = 2660 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	
ALUMINUM SULFATE	> 5000 mg/kg (Rat)		

Information on toxicological effects

No information available.

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

Irritation	Irritating to skin.
Corrosivity	Corrosive to eyes. Risk of serious damage to eyes.

Sensitization No information available.
Mutagenic Effects No information available.
Reproductive Toxicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
SODIUM METABISULFITE		Group 3		
BORAX 10 MOL	A4			

ACGIH: (American Conference of Governmental Industrial Hygienists)
A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
A4 - Not Classifiable as a Human Carcinogen

NTP: (National Toxicity Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

IARC: (International Agency for Research on Cancer)
Group 1: Carcinogenic to humans
Group 2A: Probably carcinogenic to humans
Group 2B: Possibly carcinogenic to humans
Group 3: Not classifiable as to its carcinogenicity to humans

OSHA: (Occupational Safety & Health Administration)
X - Present

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organ Effects Eyes, Respiratory system, Skin, Teeth.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document
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ATEmix (oral) 3200 mg/kg
ATEmix (dermal) 46246 mg/kg
ATEmix (inhalation-dust/mist) 263.3 mg/l

ATE: Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Chemical Name	Algae toxicity	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
ACETIC ACID		Pimephales promelas: 79 mg/L at 96 h		65: 48 h Daphnia magna mg/L EC50 Static

Persistence and degradability

No information available.

Bioaccumulation

.

Chemical Name	Octanol Water Partition Coefficient (log pow)
SODIUM METABISULFITE	-3.7
ACETIC ACID	-0.31

Mobility

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Dispose of in accordance with local regulations.

Contaminated packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated.
MEX	Not regulated
ICAO	Not regulated
IATA	Not regulated
IMDG	Not regulated
ADR/RID	Not regulated
ADN	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Yes
DSL/NDSL	Yes
PICCS	Yes
EINECS/ELINCS	No
ENCS	Yes
IECSC	Yes
KECL	Yes
AICS	Yes

***Yes - All component(s) of this product are included or are exempt from listing on the inventory.**

***No - Indicates the component(s) of this product are either not listed or have not been determined to be listed on the inventory.**

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

U.S. Federal Regulations

TSCA Sections 4, 5 and 12(b)

This product does not contain any chemicals regulated by TSCA Sections 4, 5 or 12(b).

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	SARA 313 - Threshold Values %	Weight-%
AMMONIUM THIOSULFATE	7783-18-8	1.0	20-40%

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

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
ACETIC ACID	5000 lb			X
ALUMINUM SULFATE	5000 lb			X

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):.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
ACETIC ACID	5000		RQ 5000 lb final RQ RQ 2270 kg final RQ
ALUMINUM SULFATE	5000		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

.

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
SODIUM METABISULFITE	X	X	X		X
ACETIC ACID	X	X	X		X
BORAX 10 MOL	X	X	X	X	X
ALUMINUM SULFATE	X	X	X		

International Regulations

Canada - NDSL

This product does not contain any NDSL chemicals.

Mexico - Grade
Slight risk, Grade 1

Mexico - Carcinogen Status and Exposure Limits

Chemical Name	Carcinogen Status	Exposure Limits
ACETIC ACID		Mexico: TWA 10 ppm Mexico: TWA 25 mg/m³ Mexico: STEL 15 ppm Mexico: STEL 37 mg/m³
BORAX 10 MOL		Mexico: TWA 5 mg/m³
ALUMINUM SULFATE		Mexico: TWA 2 mg/m³

Other Regulations
No information available

16. OTHER INFORMATION

NFPA	**Health Hazard** 3	**Flammability** 1	**Instability** 0	**Physical and chemical hazards** -
HMIS	**Health Hazard** 3	**Flammability** 1	**Physical Hazard** 0	**Personal protection** C

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