Section 1 Chemical Product and Company Identification

HOME SCIENCE TOOLS

665 Carbon Street Billings, MT 59102 800-860-6272 www.homesciencetools.com CHEMTREC 24 Hour Emergency USA
Phone Number (800) 424-9300
1 703-741-5500 (from anywhere in the world).
For laboratory and industrial use only.
Not for drug, food or household use.

Page E1 of E2

Product MAGNESIUM SULFATE, HEPTAHYDRATE

Synonyms Epsom Salts

Section 2 Hazards Identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

Signal word: None

Pictograms: No symbol required **Target organs:** None known

GHS Classification: Not classified

GHS Label information: Hazard statement: Not classified

Precautionary statement: Not classified

Supplementary information:

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

i ilysicai liazarus i	ot otherwise classified (FT INOC) - NC	t Kilowii						
Section 3	ion 3 Composition / Information on Ingredients							
Chemical Name		CAS#	%	EINECS				
Magnesium sulfate	;	10034-99-8	100%	231-298-2 (anhydrous)				
-				,				

Section 4 First Aid Measures

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage Page E2 of E2

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8	Exposure Controls / Personal Protection					
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
Exposure Limits.	Magnesium sulfate	None established	None established	None established		

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid, White crystalline powder

Odor: No odor.

Odor threshold: Data not available.

pH: Data not available

Melting / Freezing point: Data not available
Boiling point: Data not available

Flash point: Data not available

Evaporation rate (= 1): Data not available Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): Data not available Vapor density (Air = 1): Data not available Relative density (Specific gravity): 2.7

Relative density (Specific gravity): 2.7 Solubility(ies): Appreciable in water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available

Marine pollutant: No

Viscosity: Data not available. Molecular formula: MgSO₄•7H₂O Molecular weight: 246.48

Section 10 Stability & Reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures and heat. Protect from moisture.

Incompatible materials: None known.

Hazardous decomposition products: Sulfur oxides.

Section 11 Toxicological Information

Acute toxicity: Data not available

Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: May cause respiratory irritation.

Ingestion: Ingestion may cause nausea, vomiting and diarrhea.

Skin: Contact with skin may cause irritation. Eyes: Contact with eyes may cause irritation.

Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is

not available. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: Data not available

Section 12 Ecological Information

Toxicity to fish: Gambusia affinis (fish, fresh water), LC50: 15,500 mg/L/24 hours

Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea), EC50: 1,700 mg/L/24 hours

Toxicity to algae: Scenedesmus subspicatus (Algae), EC50: 2,700 mg/L/ 72 hours

Persistence and degradability: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number:Not applicableShipping name:Not RegulatedHazard class:Not applicablePacking group:Not applicable

Packing group: Not applicable Reportable Quantity: No 2016 ERG Guide # Not applicable

Section 15 Regulatory Information

Exceptions: Not applicable

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Magnesium sulfate	Listed	Not listed	Not listed	Listed		This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 16 Other Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Form 06/2015 Revision Date: March 2, 2018 Supercedes: December 7, 2016

Woeber MISTARD Manufacturing Company

P.O. Box 388 • 1966 Commerce Circle • Springfield, Ohio 45501 Phone 937/323-6281 • 1-800/548-2929 • FAX 937/323-1679

Section 1: Identification

Product Identifier: Vinegar (5% acidity)
Chemical Name: Acetic Acid (CH3COOH)

CAS #: 64-19-7 Recommended Use: Food

Manufacturer Name: Woeber Mustard Mfg. Company

Address: 1966 Commerce Circle Springfield, OH 45501

Telephone: 1-800-548-2929

Emergency Number: CHEMTREC: 1-800-424-9300

Section 2: Hazard(s) Identification

GHS Classification: Skin Corrosive 2, Eye Irritant 2A, Hazardous to aquatic

environment



Signal Word: WARNING

Hazard Statements H320: Causes eye irritation

H315: Causes skin irritationH332: Harmful if inhaledH402: Harmful to aquatic life

Precautionary Statements P261: Avoid breathing fumes/mist/vapors/spray

P264: Wash exposed skin thoroughly after handling.

P280: Wear protective gloves to avoid prolonged exposure.

P304+P340: IF INHALED: Remove person to fresh air and keep

comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing

P273: Avoid release into the environment

Concentrated vapors irritating to eyes and respiratory tract, avoid inhalation. May cause minor skin irritation.

NFPA Scale-



HMIS Rating-



HMIS RATINGS (0-4)

Section 3: Composition/Information on Ingredients

 Chemical Name
 Amount
 CAS Number

 Acetic Acid
 5%
 64-19-7

 Water
 95%
 7732-18-5

Section 4: First Aid Measures

Inhalation: If exposed to excessive levels of fumes, remove to fresh air.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. Immediately call a POISON CENTER.

Skin Contact: If on skin; wash with plenty of soap and water. If skin irritation occurs, seek medical

advice/attention. If on clothes; remove/take off all contaminated clothing. Rinse skin

with soap and water.

Ingestion: Intended for ingestion, however if swallowed in large quantities, water may be

consumed to dilute. Rinse mouth. Do NOT induce vomiting. Immediately call a

POISON CENTER or doctor/physician.

Section 5: Fire Fighting Measures

Flash Point: 40° C (104° F) closed cup

(Acetic Acid)

Auto Ignition Temp.: 427° C (800° F)

(Acetic Acid)

Flammable Limits in Air: 4.0% - 16%

(Acetic Acid)

Extinguishing Media:

Water spray, foam CO2 or dry chemical. Water may be used to dilute spills and reduce flammability.

Hazards from Fire:

Toxic gasses and vapors may be released in a fire involving concentrated vinegars.

Section 6: Accidental Release Measures

Small Spill Procedure:

Treat or dispose of waste material as a weak acid in accordance with all local, state/provincial, and national requirements. Water may be used to dilute.

Large Spill Procedure:

Contain spilled material. Large spills may be neutralized with dilute alkaline solutions of soda ash, or lime. Avoid runoff into storm sewers and ditches that lead to waterways. Treat or dispose of waste material as a weak acid in accordance with all local, state/provincial, and national requirements.

Personal Protection:

Protect skin and eyes from exposure. Avoid breathing vapor.

Environmental Precautions:

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Section 7: Handling and Storage

Precautions for Handling:

Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Wash contaminated clothing before reusing.

Conditions for safe Storage:

Store in a cool, well ventilated place.

Section 8: Exposure Controls/Personal Protection

Permissible Exposure Limit (PEL): 10 ppm acetic acid

Threshold Limit Value (TLV): 10 ppm acetic acid

Short Term Exposure Limit (STEL): 15 ppm acetic acid

Recommended Exposure Limit (REL): 10 ppm acetic acid

Engineering Controls:

Local exhaust ventilation may be necessary to control any air contaminants to within their TLV during the use of the product. Emergency shower and eye wash stations should be readily available.

Eye/Face Protection;

Wear safety glasses and/or face shield.

Skin Protection:

Rubber/neoprene gloves recommended. Rubber apron or other protective equipment as needed to reduce direct contact. (Concentrated vinegars only)

Respiratory Protection:

As required to prevent exposure to concentrations which exceed the PEL.

Thermal Hazards: None known

General Hygiene considerations:

Section 9: Physical and Chemical Properties

Physical State and Appearance: Liquid

Odor: Pungent, Vinegar-like

Color: Colorless, Clear
Boiling Point: 100°C (212°F)
Freezing Point: -2.22°C (28 °F)

PH: 2.6

Specific Gravity: 1.049 (Water = 1)Vapor Pressure: $1.5 \text{ kPa } @ 20^{\circ}\text{C}$

Solubility in Water: Complete

Section 10: Stability and Reactivity

Reactivity/Stability: The product is stable and non-reactive under normal conditions of

use, storage and transport.

Incompatibilities: Avoid strong oxidizing agents / bases

Polymerization: Will not occur

Section 11: Toxicological Information

Routes of entry Inhalation, ingestion and skin contact

Symptoms (acute) Respiratory irritation

Delayed effects No data available

CarcinogenicityNo evidence of a carcinogenic effectMutagenicityNo evidence of a mutagenicity effectTeratogenicityNo evidence of a teratogenicity effectSensitizationNo evidence of a sensitization effectReproductiveNo evidence of a Reproductive effect

Section 12: Ecological Information

Ecotoxicity: Will biodegrade readily under aerobic and anaerobic conditions.

Section 13: Disposal Considerations

Treat or dispose of waste material as a weak acid in accordance with all local, state/provincial, and national requirements.

Section 14: Transportation Information

Product Label: Vinegar.

DOT Shipping Name: Not applicable
Technical Shipping Name: Not applicable
DOT Hazard Class: Not applicable

UN Number: Not applicable for vinegar containing less than 25% acetic

acid, provided packaging complies with ADR Special Provision 647; UN2790 for vinegar containing more than

25% acetic acid

Product RO (lbs): Quantity containing the equivalent of 5000 lb of 100%

acetic acid, (16,667 lb of vinegar containing 30% acetic

acid)

DOT Label: Not applicable

Section 15: Regulatory Information

Canadian Disclosure List: Acetic Acid (64-19-7)

Comprehensive Environmental Response, Compensation, & Liability Act (CERCLA): Acetic Acid (64-19-7)

Food & Drug Administration (FDA)
Product is a GRAS (Generally Recognized as Safe) food ingredient.

Section 16: Other Information

Not Available

Woeber Mustard Co.	Revision Date 6/19/17	Revision Number – 3
l .		

MATERIAL SAFETY DATA SHEET

04/03/2018

1. PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER OR DISTRIBUTOR : Bangkit USA INC

10511 Valley Boulevard El Monte, CA 91731

INFORMATION TELEPHONE NUMBER : 626-672-0888

EMERGENCY TELEPHONE NUMBER : Call Local Poison Control Center

PRODUCT NAME : BAZIC MODELING DOUGHS

2. COMPOSITION ON INGREDIENTS

INGREDIENT NAME	CAS#
Starch Soluble	9005-84-9
Water	7732-18-5
Sodium Chloride	7647-14-5
Glycerol	56-81-5

3. HAZARD IDENTIFICATION

Pigment Colors

This product, when used under reasonable conditions and accordance with the normal use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's direction for use may affect the performance of the product and may present potential health and safety hazards.

POTENTIAL HEALTH EFFECTS

Eye Contact : is not expected to occur during normal use of the product.

Skin Contact : is not expected to result in significant irritation during product use.

Inhalation : is not expected to occur during normal use of the product.

Ingestion : no health effects are expected.

4. FIRST AID MEASURES

Skin contact : No effect of exposures expected.
Eye contact : No effect of exposure expected.
Inhalation : No effect of exposure expected.

Ingestion : If the product is swallowed, please contact physician immediately.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flammable : N/A Flash point : 350° C

EXTINGUISHING MEDIA

Ordinary combustible material. Use fire extinguishers with class A extinguishing agents (e.g., water, foam)

PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures : water may be used to blanket the fire Unusual Fire and Explosion Hazards : no unusual fire or explosion hazards are

anticipated.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Not Applicable

7. HANDLING AND STORAGE

HANDLING

Use methods to minimize dust.

STORAGE

Store and handle in accordance with all current regulations and standards. See original containers for storage recommendations. Keep separated from incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

Not Applicable

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection : Not Applicable.

Skin Protection : Not applicable. Gloves not normally required. Avoid

prolonged or repeated skin contact.

Respiratory Protection : Under normal use conditions, airborne exposures are not

expected to be significant enough to require respiratory

protection.

Prevention of Swallowing : Not an expected route of exposure.

EXPOSURE GUIDELINES

None Established

9. PHYSICAL AND CHEMICAL PROPERTIES

: N/A Appearance : Solid Flash Point Physical Sate : Solid Flammability : N/A Physical Form : Solid Vapor Pressure : N/A Color Vapor Density (air=1) : N/A : Assorted colors Odor **Evaporation Rate** : Odorless : N/A Odor Threshold : N/A Specific Gravity : N/A Density : N/A : N/A рH Water Solubility Melting Point : N/A : N/A Freezing Point : N/A Coeff. Water/Oli Dist : N/A **Boiling Point** : N/A Volatility : N/A

Viscosity : N/A

10. STABILITY AND REACTIVITY

Chemical Stability : Stable at normal temperatures and pressure.

Conditions to Avoid : None reported.

Materials to Avoid : Oxidizing materials.

Decomposition Products : Oxides of carbon.

Possibility of Hazardous Reactions : Will not polymerize.

11. TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined

CHEMICAL FATE INFORMATION Not determined

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with all applicable regulations

Since regulations vary, consult applicable regulations or authorities before disposal.

14. TRANSPORT INFORMATION

No special requirement

15. REGULATORY INFORMATION

Not available

16. OTHER INFORMATION

Not available

DISCLAIMER: the information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. Bazic Products MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the Bazic product is fit for particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a Bazic product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the Bazic product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

GENERAL STORAGE CODE GREEN

Section 1 Identification Page E1 of E2

665 Carbon Street
Billings, MT 59102
406-256-0990
www.homesciencetools.com

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory and industrial use only. Not for drug, food or household use.

Product FD&C BLUE #1

Synonyms | Vegetable Dye / Food Coloring - Blue 0.5%

Section 2 Hazards identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals

Signal word: None required Pictograms: No symbol required Target organs: None known

GHS Classification: None required

GHS Label information: Hazard statement: None required

Precautionary statement: None required

Supplemental information:

Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / information on ingredients								
Chemical Name	CAS#	%	EINECS					
Water FD&C Blue #1 (C.I. No. 42090)	7732-18-5 3844-45-9	99.5% 0.5%	231-791-2 223-339-8					

Section 4 First aid measures

INGESTION: MAY BE HARMFUL BY INGESTION. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire fighting measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling and storage Page E2 of E2

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8	Exposure controls / personal protection					
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
Exposure Limits.	FD&C Blue #3	None established	None established	None established		

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical and chemical properties

Appearance: Liquid, clear, light blue.
Odor: No odor.
Odor threshold: Data not available.

pH: Data not available.

Melting / Freezing point: Approximately 0°C (32°F) (water)

Boiling point: Approximately 100°C (212°F) (water)

Flash point: Data not available

Evaporation rate (Water = 1): <1 Flammability (solid/gas): Data not available.

Explosion limits: Lower / Upper: Data not available

Vapor pressure (mm Hg): 14 (water) Vapor density (Air = 1): 0.7 (water)

Relative density (Specific gravity): Approximately 1.0 (water)

Solubility(ies): Complete in water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available.

Marine pollutant: No

Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture

Section 10 Stability and reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures which cause evaporation.

Incompatible materials: Strong oxidizers, reducing agents.

Hazardous decomposition products: Oxides of carbon, nitrogen oxides, sulfur oxides.

Section 11 Toxicological information

Acute toxicity: Oral-rat LD50: >2,000 mg/kg Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Not expected to be a health hazard. Ingestion: May be harmful by ingestion. Skin: Contact may cause irritation. Eyes: Contact may cause irritation.

Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is

not available. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: Data not available

Section 12 Ecological information

Toxicity to fish: No data available

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Reportable Quantity: No

Section 14 Transport information

UN/NA number: Not applicable

Hazard class: Not applicable

Packing group: Not applicable

Packing group. Not applicable

Exceptions: Not applicable 2020 ERG Guide # Not applicable

Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
FD&C Blue #1 (C.I. No. 42090)	Listed	Not listed	Not listed	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Form 06/2015 Revision Date: October 11, 2022 Supercedes: September 30, 2020

GENERAL STORAGE CODE GREEN

Section 1 Identification Page E1 of E2



CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory and industrial use only. Not for drug, food or household use.

Product FD&C RED #3

Synonyms Food Coloring - Red 0.5% Aqueous Solution / Food Dye Red #3 / Food Coloring Red #3 / Dye, Vegetable

Section 2 Hazards identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals

Signal word: None required Pictograms: No symbol required Target organs: None known

GHS Classification: None required

GHS Label information: Hazard statement: None required

Precautionary statement: None required

Supplemental information:

Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / inform	nation on ingredients			
Chemical Name	CAS#	%	EINECS	
Water FD&C Red #3 (C.I. No. 45430)	7732-18-5 16423-68-0	99.5% 0.5%	231-791-2 240-474-8	

Section 4 First aid measures

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire fighting measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling and storage Page E2 of E2

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8	Exposure controls / personal protection				
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)	
Exposure Limits.	FD&C Red #3	None established	None established	None established	

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical and chemical properties

Appearance: Liquid, clear, light red.

Odor: No odor.

Section 10

Odor threshold: Data not available.

pH: Data not available.

Melting / Freezing point: Approximately 0°C (32°F) (water) Boiling point: Approximately 100°C (212°F) (water)

Flash point: Data not available

Stability and reactivity

Evaporation rate (Water = 1): <1

Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: Data not available

Vapor pressure (mm Hg): 14 (water) Vapor density (Air = 1): 0.7 (water)

Relative density (Specific gravity): Approximately 1.0 (water)

Solubility(ies): Complete in water.

Partition coefficient: Data not available

Auto-ignition temperature: Data not available

Decomposition temperature: Data not available.

Marine pollutant: No

Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures which cause evaporation.

Incompatible materials: Strong oxidizers, reducing agents.

Hazardous decomposition products: Oxides of carbon, nitrogen oxides, sulfur oxides.

Section 11 Toxicological information

Acute toxicity: Oral-rat LD50: >2,000 mg/kg Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Not expected to be a health hazard. Ingestion: May be harmful by ingestion. Skin: Contact may cause irritation. Eyes: Contact may cause irritation.

Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is

not available. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: Data not available

Section 12 Ecological information

Toxicity to fish: No data available

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport information

UN/NA number: Not applicable

Hazard class: Not applicable

Packing group: Not applicable

Packing group: Not applicable Reportable Quantity: No 2020 ERG Guide # Not applicable

Exceptions: Not applicable 2020 ERG Guide # Not applicable

Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
FD&C Red #3 (C.I. No. 45430)	Listed	Not listed	Not listed	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Form 06/2015 Revision Date: October 11, 2022 Supercedes: September 30, 2020

Section 1 Identification Page E1 of E2



CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory and industrial use only. Not for drug, food or household use.

Product FOOD DYE YELLOW #5, 0.5% AQUEOUS SOLUTION

Synonyms Food Coloring Yellow #5 / Dye, FD&C Yellow #5, 0.5% Aqueous Solution / Yellow #5 Dye / Dye, Vegetable / FD&C Yellow #5

Section 2 Hazards identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals

Signal word: None required Pictograms: No symbol required Target organs: None known

GHS Classification: None required

GHS Label information: Hazard statement: None required

Precautionary statement: None required

Supplemental information:

Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / informat	ion on ingredients			
Chemical Name	CAS#	%	EINECS	
Water	7732-18-5	99.5%	231-791-2	
FD&C Yellow #5 (C.I. No. 19140)	1934-21-0	0.5%	217-699-5	

Section 4 First aid measures

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire fighting measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling and storage Page E2 of E2

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8	Exposure controls / personal protection								
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)					
	FD&C Yellow #5	None established	None established	None established					

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical and chemical properties

Appearance: Liquid, clear, pale yellow.

Odor: No odor.

Odor threshold: Data not available.

pH: Data not available

Melting / Freezing point: Approximately 0°C (32°F) (water) Boiling point: Approximately 100°C (212°F) (water)

Flash point: Data not available

Section 10 Stability and reactivity

Evaporation rate (Water = 1): <1

Flammability (solid/gas): Data not available.

Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): 14 (water)

Vapor density (Air = 1): 0.7 (water)

Relative density (Specific gravity): Approximately 1.0 (water)

Solubility(ies): Complete in water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available.

Marine pollutant: No

Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures which cause evaporation.

Incompatible materials: Strong oxidizers, reducing agents.

Hazardous decomposition products: Oxides of carbon, nitrogen oxides, sulfur oxides.

Section 11 Toxicological information

Acute toxicity: Data not available

Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinggen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: May cause allergy or asthma symptoms or breathing difficulties in sensitive individuals.

Ingestion: Not expected to be a hazard unless swallowed in large amounts. Symptoms may be the same as inhalation or skin contact. Skin: May cause an allergic skin reaction is sensitive individuals. Symptoms may include redness, swelling, itching, rash, and hives.

Eyes: Contact may cause irritation.

Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: UQ6400000 [FD&C Yellow #5]

Section 12 Ecological information

Toxicity to fish: No data available

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport information

UN/NA number: Not applicable Shipping name: Not Regulated

Hazard class: Not applicable Packing group: Not applicable Reportable Quantity: No

Exceptions: Not applicable 2020 ERG Guide # Not applicable

Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65			
FD&C yellow #5 (C.I. No. 19140)	Listed	Not listed	Not listed	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or			
						reproductive toxicity			

Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

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