SECTION 1: Identification

1.1. Identification of the substance/mixture

Product form	:	Substance
Product name	:	Click-&-Go® Dde Protein Enrichment Kit
Kit component	:	Dde Azide Agarose resin, 50% slurry (Component A)
Product code	:	CCT-1153

1.2. Identified uses of the substance or mixture

Identified Uses	:	Laboratory chemicals, manufacture of substances

1.3. Company/undertaking identification

Manufacturer
Vector Laboratories, Inc.
8341 E. Gelding Drive
Scottsdale, AZ 85260
T: (480) 584-3340
customerservice@vectorlabs.com

1.4. Emergency telephone number

Emergency number	:	US only (800) 227-6666 or outside of the US +1 (650) 697-3600 (7:15 AM - 5:00 PM PST)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2. GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

Not a hazardous substance or mixture.

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%
Dde Azide Agarose resin, 50% slurry (Component A)	CAS-No.: N/A	N/A

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets.
This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

If inhaled	:	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
In case of skin contact	:	Rinse with plenty of water. Immediate medical attention is not required.
In case of eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
If swallowed	:	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

4.2. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

4.3. Most important symptoms and effects, both acute and delayed

Not Applicable

4.4. Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical.

5.2. Advice from firefighters

Standard procedure for chemical fires.

5.3. Further information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. See Section 8 for more detail.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 8 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Dde Azide Agarose resin, 50% slurry (Component A)
No additional information available

8.2. Appropriate engineering controls

Exposure Limits : Contains no substances with occupational exposure limit values
Engineering measures : Ensure adequate ventilation, especially in confined areas

8.3. Individual protection measures/ Personal protective equipment

Respiratory protection:
In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards
Hand protection:
Wear suitable gloves. Glove material: Compatible chemical-resistant gloves
Eye/Face protection:
Wear tight sealing safety goggles
Skin/Body Protection:
Wear suitable protective clothing
Hygiene measures:
Handle in accordance with good industrial hygiene and safety practice
Control of Environmental exposure:
No special environmental precautions required

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance : Solid
Color : No data available
Odor : No data available
Odor threshold : No data available
pH : Not Applicable
Melting / Freezing points : °C and °F Mixture has not been tested
Initial boiling point & boiling range : °C and °F Mixture has not been tested
Flash point : °C and °F Mixture has not been tested
Evaporation rate : No data available

Flammability (solid, gas)	:	No data available
Explosive limits	:	Mixture has not been tested
Vapor pressure	:	Mixture has not been tested
Relative density	:	Mixture has not been tested
Water solubility	:	DMSO, DMF, DCM, THF, Chloroform
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

None known

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Hazardous reaction has not been reported

10.4. Conditions to avoid

No information available

10.5. Incompatible materials

No dangerous reaction known under conditions of normal use

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	No data available
Irritation	:	No data available
Corrosivity	:	No data available
Sensitization	:	No data available
STOT - Single Exposure	:	No data available
STOT - Repeated Exposure	:	No data available
Carcinogenicity	:	No data available
Mutagenicity	:	No data available
Reproductive toxicity	:	No data available
Aspiration hazard	:	No data available
Viscosity, kinematic	:	No data available

SECTION 12: Ecological information

12.1. Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

12.4. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

12.5. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations.

UN number	:	Not applicable
UN proper shipping name	:	Not applicable
Transport hazard class(es)	:	Not applicable
Packing group	:	Not applicable
Environmental hazards	:	Not applicable
Special precautions for user	:	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:	
Dde Azide Agarose resin, 50% slurry (Component A)	CAS-No. N/A

15.2. SARA 313 Components

This product is not regulated by SARA

15.3. Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

15.4. California Proposition 65

This product does not contain any Proposition 65 chemicals.

15.5. WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products

Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other information

16.1. References

ECHA: http://echa.europa.eu/

TOXNET: http://toxnet.nlm.nih.gov/

eChemPortal: http://www.echemportal.org/

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

Custom_SDS_USA_VECTOR

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1. Identification of the substance/mixture

Product form	:	Substance
Product name	:	Click-&-Go® Dde Protein Enrichment Kit
Kit component	:	Lysis buffer (Component B)
Product code	:	CCT-1153

1.2. Identified uses of the substance or mixture

Identified Uses	:	Laboratory chemicals, manufacture of substances

1.3. Company/undertaking identification

Manufacturer
Vector Laboratories, Inc.
8341 E. Gelding Drive
Scottsdale, AZ 85260
T: (480) 584-3340
customerservice@vectorlabs.com

1.4. Emergency telephone number

Emergency number	:	US only (800) 227-6666 or outside of the US +1 (650) 697-3600 (7:15 AM - 5:00 PM PST)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2. GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

Not a hazardous substance or mixture.

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%
Lysis buffer (Component B)	CAS-No.: N/A	N/A

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets.
This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

If inhaled	:	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
In case of skin contact	:	Rinse with plenty of water. Immediate medical attention is not required.
In case of eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
If swallowed	:	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

4.2. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

4.3. Most important symptoms and effects, both acute and delayed

Not Applicable

4.4. Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical.

5.2. Advice from firefighters

Standard procedure for chemical fires.

5.3. Further information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. See Section 8 for more detail.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 8 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Lysis buffer (Component B)
No additional information available

8.2. Appropriate engineering controls

Exposure Limits : Contains no substances with occupational exposure limit values
Engineering measures : Ensure adequate ventilation, especially in confined areas

8.3. Individual protection measures/ Personal protective equipment

Respiratory protection:
In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards

Hand protection:
Wear suitable gloves. Glove material: Compatible chemical-resistant gloves

Eye/Face protection:
Wear tight sealing safety goggles

Skin/Body Protection:
Wear suitable protective clothing

Hygiene measures:
Handle in accordance with good industrial hygiene and safety practice
Control of Environmental exposure:
No special environmental precautions required

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance : Solid
Color : No data available
Odor : No data available
Odor threshold : No data available
pH : Not Applicable
Melting / Freezing points : °C and °F Mixture has not been tested
Initial boiling point & boiling range : °C and °F Mixture has not been tested
Flash point : °C and °F Mixture has not been tested
Evaporation rate : No data available

Flammability (solid, gas)	:	No data available
Explosive limits	:	Mixture has not been tested
Vapor pressure	:	Mixture has not been tested
Relative density	:	Mixture has not been tested
Water solubility	:	DMSO, DMF, DCM, THF, Chloroform
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

None known

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Hazardous reaction has not been reported

10.4. Conditions to avoid

No information available

10.5. Incompatible materials

No dangerous reaction known under conditions of normal use

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	No data available
Irritation	:	No data available
Corrosivity	:	No data available
Sensitization	:	No data available
STOT - Single Exposure	:	No data available
STOT - Repeated Exposure	:	No data available
Carcinogenicity	:	No data available
Mutagenicity	:	No data available
Reproductive toxicity	:	No data available
Aspiration hazard	:	No data available
Viscosity, kinematic	:	No data available

SECTION 12: Ecological information

12.1. Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

12.4. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

12.5. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations.

UN number	:	Not applicable
UN proper shipping name	:	Not applicable
Transport hazard class(es)	:	Not applicable
Packing group	:	Not applicable
Environmental hazards	:	Not applicable
Special precautions for user	:	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:	
Lysis buffer (Component B)	CAS-No. N/A

15.2. SARA 313 Components

This product is not regulated by SARA

15.3. Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

15.4. California Proposition 65

This product does not contain any Proposition 65 chemicals.

15.5. WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products

Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other information

16.1. References

ECHA: http://echa.europa.eu/

TOXNET: http://toxnet.nlm.nih.gov/

eChemPortal: http://www.echemportal.org/

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1. Identification of the substance/mixture

Product form	:	Substance
Product name	:	Click-&-Go® Dde Protein Enrichment Kit
Kit component	:	Urea (Component C)
Product code	:	CCT-1153

1.2. Identified uses of the substance or mixture

Identified Uses	:	Laboratory chemicals, manufacture of substances

1.3. Company/undertaking identification

Manufacturer
Vector Laboratories, Inc.
8341 E. Gelding Drive
Scottsdale, AZ 85260
T: (480) 584-3340
customerservice@vectorlabs.com

1.4. Emergency telephone number

Emergency number	:	US only (800) 227-6666 or outside of the US +1 (650) 697-3600 (7:15 AM - 5:00 PM PST)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2. GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

Not a hazardous substance or mixture.

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%
Urea (Component C)	CAS-No.: 57-13-6	N/A

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets.
This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

If inhaled	:	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
In case of skin contact	:	Rinse with plenty of water. Immediate medical attention is not required.
In case of eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
If swallowed	:	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

4.2. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

4.3. Most important symptoms and effects, both acute and delayed

Not Applicable

4.4. Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical.

5.2. Advice from firefighters

Standard procedure for chemical fires.

5.3. Further information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. See Section 8 for more detail.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 8 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Lysis buffer (Component B)
No additional information available

8.2. Appropriate engineering controls

Exposure Limits : Contains no substances with occupational exposure limit values
Engineering measures : Ensure adequate ventilation, especially in confined areas

8.3. Individual protection measures/ Personal protective equipment

Respiratory protection:
In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards

Hand protection:
Wear suitable gloves. Glove material: Compatible chemical-resistant gloves

Eye/Face protection:
Wear tight sealing safety goggles

Skin/Body Protection:
Wear suitable protective clothing

Hygiene measures:
Handle in accordance with good industrial hygiene and safety practice
Control of Environmental exposure:
No special environmental precautions required

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance : Solid
Color : White
Odor : No data available
Odor threshold : No data available
pH : 7.5 - 9.5 at 480 g/l at 25 °C (77 °F)
Melting / Freezing points : 133 - 135 °C (271 - 275 °F)
Initial boiling point & boiling range : °C and °F Mixture has not been tested
Flash point : °C and °F Mixture has not been tested
Evaporation rate : No data available

Flammability (solid, gas)	:	No data available
Explosive limits	:	Mixture has not been tested
Vapor pressure	:	0.009 hPa (0.007 mmHg) at 20 °C (68 °F)
Relative density	:	1.335 g/cm3
Water solubility	:	480 g/l at 20 °C (68 °F) - completely soluble
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

None known

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Hazardous reaction has not been reported

10.4. Conditions to avoid

No information available

10.5. Incompatible materials

No dangerous reaction known under conditions of normal use

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

LD50 Oral - rat - 8,471 mg/kg

11.2. Principal Routes of Exposure

Irritation	:	No data available
Corrosivity	:	No data available
Sensitization	:	No data available
STOT - Single Exposure	:	No data available
STOT - Repeated Exposure	:	No data available
Carcinogenicity		
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.
ACGIH	:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
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.
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.

Mutagenicity	:	No data available
Reproductive toxicity	:	No data available
Aspiration hazard	:	No data available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish	:	No data available LC50 - Poecilia reticulata (guppy) - 17,500 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	:	No data available EC50 - Daphnia magna (Water flea) - 3,910 mg/l - 48 h

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

12.4. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

12.5. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations.

UN number	:	Not applicable
UN proper shipping name	:	Not applicable
Transport hazard class(es)	:	Not applicable
Packing group	:	Not applicable
Environmental hazards	:	Not applicable
Special precautions for user	:	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:	
Urea (Component C)	CAS-No. 57-13-6

15.2. SARA 313 Components

This product is not regulated by SARA

15.3. Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

15.4. California Proposition 65

This product does not contain any Proposition 65 chemicals.

15.5. WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products

Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other information

16.1. References

ECHA: http://echa.europa.eu/

TOXNET: http://toxnet.nlm.nih.gov/

eChemPortal: http://www.echemportal.org/

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1. Identification of the substance/mixture

Product form	:	Substance
Product name	:	Click-&-Go® Dde Protein Enrichment Kit
Kit component	:	Additive 1 (Component D)
Product code	:	CCT-1153

1.2. Identified uses of the substance or mixture

Identified Uses	:	Laboratory chemicals, manufacture of substances

1.3. Company/undertaking identification

Manufacturer
Vector Laboratories, Inc.
8341 E. Gelding Drive
Scottsdale, AZ 85260
T: (480) 584-3340
customerservice@vectorlabs.com

1.4. Emergency telephone number

Emergency number	:	US only (800) 227-6666 or outside of the US +1 (650) 697-3600 (7:15 AM - 5:00 PM PST)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2. GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

Not a hazardous substance or mixture.

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%
Additive 1 (Component D)	CAS-No.: N/A	N/A

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets.
This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

If inhaled	:	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
In case of skin contact	:	Rinse with plenty of water. Immediate medical attention is not required.
In case of eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
If swallowed	:	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

4.2. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

4.3. Most important symptoms and effects, both acute and delayed

Not Applicable

4.4. Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical.

5.2. Advice from firefighters

Standard procedure for chemical fires.

5.3. Further information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. See Section 8 for more detail.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 8 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additive 1 (Component D)
No additional information available

8.2. Appropriate engineering controls

Exposure Limits : Contains no substances with occupational exposure limit values
Engineering measures : Ensure adequate ventilation, especially in confined areas

8.3. Individual protection measures/ Personal protective equipment

Respiratory protection:
In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards

Hand protection:
Wear suitable gloves. Glove material: Compatible chemical-resistant gloves

Eye/Face protection:
Wear tight sealing safety goggles

Skin/Body Protection:
Wear suitable protective clothing

Hygiene measures:
Handle in accordance with good industrial hygiene and safety practice
Control of Environmental exposure:
No special environmental precautions required

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance : Solid
Color : No data available
Odor : No data available
Odor threshold : No data available
pH : Not Applicable
Melting / Freezing points : °C and °F Mixture has not been tested
Initial boiling point & boiling range : °C and °F Mixture has not been tested
Flash point : °C and °F Mixture has not been tested
Evaporation rate : No data available

Flammability (solid, gas)	:	No data available
Explosive limits	:	Mixture has not been tested
Vapor pressure	:	Mixture has not been tested
Relative density	:	Mixture has not been tested
Water solubility	:	DMSO, DMF, DCM, THF, Chloroform
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

None known

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Hazardous reaction has not been reported

10.4. Conditions to avoid

No information available

10.5. Incompatible materials

No dangerous reaction known under conditions of normal use

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	No data available
Irritation	:	No data available
Corrosivity	:	No data available
Sensitization	:	No data available
STOT - Single Exposure	:	No data available
STOT - Repeated Exposure	:	No data available
Carcinogenicity	:	No data available
Mutagenicity	:	No data available
Reproductive toxicity	:	No data available
Aspiration hazard	:	No data available
Viscosity, kinematic	:	No data available

SECTION 12: Ecological information

12.1. Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

12.4. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

12.5. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations.

UN number	:	Not applicable
UN proper shipping name	:	Not applicable
Transport hazard class(es)	:	Not applicable
Packing group	:	Not applicable
Environmental hazards	:	Not applicable
Special precautions for user	:	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:	
Additive 1 (Component D)	CAS-No. N/A

15.2. SARA 313 Components

This product is not regulated by SARA

15.3. Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

15.4. California Proposition 65

This product does not contain any Proposition 65 chemicals.

15.5. WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products

Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other information

16.1. References

ECHA: http://echa.europa.eu/

TOXNET: http://toxnet.nlm.nih.gov/

eChemPortal: http://www.echemportal.org/

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1. Identification of the substance/mixture

Product form	:	Substance
Product name	:	Click-&-Go® Dde Protein Enrichment Kit
Kit component	:	Copper (II) Sulfate, 100 mM solution (Component E)
Product code	:	CCT-1153

1.2. Identified uses of the substance or mixture

Identified Uses	:	Laboratory chemicals, manufacture of substances

1.3. Company/undertaking identification

Manufacturer
Vector Laboratories, Inc.
8341 E. Gelding Drive
Scottsdale, AZ 85260
T: (480) 584-3340
customerservice@vectorlabs.com

1.4. Emergency telephone number

Emergency number	:	US only (800) 227-6666 or outside of the US +1 (650) 697-3600 (7:15 AM - 5:00 PM PST)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute oral toxicity	:	Category 4
Skin Corrosion/irritation	:	Category 2
Serious Eye Damage/Eye Irritation	:	Category 2

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS-US):

GHS07 GHS09

Signal word (GHS-US): Warning

Hazard statements (GHS-US):

H302 - Harmful if swallowed

H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P264 - Wash exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P273 - Avoid release to the environment

P311 - Call a POISON CENTER or doctor/physician

P330 - If swallowed, rinse mouth

P391 - Collect spillage

P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

None

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%
Copper (II) Sulfate, 100 mM solution (Component E)	CAS-No.: 7758-99-8	N/A

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets.
This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

If inhaled : Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

In case of skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

In case of eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Obtain medical attention if pain, blinking or redness persists.

If swallowed : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POSION CENTER or physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Swallowing a small amount of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical.

5.2. Advice from firefighters

Standard procedure for chemical fires.

5.3. Further information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. See Section 8 for more detail.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 8 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Copper (II) Sulfate, 100 mM solution (Component E)
No additional information available

8.2. Appropriate engineering controls

Exposure Limits : Contains no substances with occupational exposure limit values
Engineering measures : Ensure adequate ventilation, especially in confined areas

8.3. Individual protection measures/ Personal protective equipment

Respiratory protection:
In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards

Hand protection:
Wear suitable gloves. Glove material: Compatible chemical-resistant gloves

Eye/Face protection:
Wear tight sealing safety goggles

Skin/Body Protection:
Wear suitable protective clothing

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

Control of Environmental exposure:
No special environmental precautions required

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	:	Liquid
Color	:	No data available
Odor	:	No data available
Odor threshold	:	No data available
pH	:	Not Applicable
Melting / Freezing points	:	°C and °F Mixture has not been tested
Initial boiling point & boiling range	:	°C and °F Mixture has not been tested
Flash point	:	°C and °F Mixture has not been tested
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Non-flammable
Explosive limits	:	Mixture has not been tested
Vapor pressure	:	Mixture has not been tested
Relative density	:	Mixture has not been tested
Water solubility	:	Soluble in water
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

None known

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Hazardous reaction has not been reported

10.4. Conditions to avoid

Extremely high or low temperatures

10.5. Incompatible materials

Strong reducing agents. Strong bases.

10.6. Hazardous decomposition products

Sulfur compounds. Copper.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure	:	Skin and eye contact
Acute Toxicity	:	Oral; Harmful if swallowed

11.2. Principal Routes of Exposure

Irritation	:	No data available
Corrosivity	:	No data available
Sensitization	:	No data available
STOT - Single Exposure	:	No data available
STOT - Repeated Exposure	:	No data available
Carcinogenicity	:	No data available
Mutagenicity	:	No data available
Reproductive toxicity	:	No data available
Aspiration hazard	:	No data available

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

12.4. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

12.5. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	:	The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. IATA / ADR / DOT-US / IMDG

UN3082 Environmentally hazardous substances, liquid, n.o.s. (Copper Sulfate), 9, III

UN number	:	UN3082
UN proper shipping name	:	Environmentally hazardous substance, liquid n.o.s. Copper sulfate
Transport hazard class(es)	:	9- Class 9- Miscellaneous hazardous material 49 CFR 173.140
Packing group	:	III – Minor danger
Environmental hazards	:	Dangerous to the environment

Special precautions for user	:	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:	
Copper (II) Sulfate, 100 mM solution (Component E)	CAS-No. 7758-99-8

15.2. SARA 313 Components

This product is not regulated by SARA

15.3. Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

15.4. California Proposition 65

This product does not contain any Proposition 65 chemicals.

15.5. WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products

Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other information

16.1. Other Information

Revision date: 12/21/2018

Other information: None.

Full text of H-phrases: see section 16:

H301	Toxic if swallowed
H302	Harmful if swallowed
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA health hazard	:	2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard	:	0 - Materials that will not burn under typical dire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity	:	0 - Material that in themselves are normally stable, even under fire conditions.For research use only. Not intended for human or animal diagnostic or therapeutic uses.

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The information provided in this Safety Data Sheet is from available published sources and is believed to be accurate to the best of our knowledge at the date of its publication. The information given is designed only as 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

SECTION 1: Identification

1.1. Identification of the substance/mixture

Product form	:	Substance
Product name	:	Click-&-Go® Dde Protein Enrichment Kit
Kit component	:	Additive 2 (Component F)
Synonym	:	(+)-Sodium L-Ascorbate, Vitamin C Sodium Salt
Product code	:	CCT-1153

1.2. Identified uses of the substance or mixture

Identified Uses	:	Laboratory chemicals, manufacture of substances

1.3. Company/undertaking identification

Manufacturer
Vector Laboratories, Inc.
8341 E. Gelding Drive
Scottsdale, AZ 85260
T: (480) 584-3340
customerservice@vectorlabs.com

1.4. Emergency telephone number

Emergency number	:	US only (800) 227-6666 or outside of the US +1 (650) 697-3600 (7:15 AM - 5:00 PM PST)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2. GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

Not a hazardous substance or mixture.

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%
Additive 2 (Component F)	CAS-No.: 134-03-2	N/A

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets.
This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

If inhaled	:	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
In case of skin contact	:	Rinse with plenty of water. Immediate medical attention is not required.
In case of eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
If swallowed	:	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

4.2. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

4.3. Most important symptoms and effects, both acute and delayed

Not Applicable

4.4. Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical.

5.2. Advice from firefighters

Standard procedure for chemical fires.

5.3. Further information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. See Section 8 for more detail.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 8 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additive 2 (Component F)
No additional information available

8.2. Appropriate engineering controls

Exposure Limits : Contains no substances with occupational exposure limit values
Engineering measures : Ensure adequate ventilation, especially in confined areas

8.3. Individual protection measures/ Personal protective equipment

Respiratory protection:
In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards

Hand protection:
Wear suitable gloves. Glove material: Compatible chemical-resistant gloves

Eye/Face protection:
Wear tight sealing safety goggles

Skin/Body Protection:
Wear suitable protective clothing

Hygiene measures:
Handle in accordance with good industrial hygiene and safety practice
Control of Environmental exposure:
No special environmental precautions required

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance : Solid
Color : No data available
Odor : No data available
Odor threshold : No data available
pH : Not Applicable
Melting / Freezing points : °C and °F Mixture has not been tested
Initial boiling point & boiling range : °C and °F Mixture has not been tested
Flash point : °C and °F Mixture has not been tested
Evaporation rate : No data available

Flammability (solid, gas)	:	No data available
Explosive limits	:	Mixture has not been tested
Vapor pressure	:	Mixture has not been tested
Relative density	:	Mixture has not been tested
Water solubility	:	DMSO, DMF, DCM, THF, Chloroform
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

None known

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Hazardous reaction has not been reported

10.4. Conditions to avoid

No information available

10.5. Incompatible materials

No dangerous reaction known under conditions of normal use

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	No data available
Irritation	:	No data available
Corrosivity	:	No data available
Sensitization	:	No data available
STOT - Single Exposure	:	No data available
STOT - Repeated Exposure	:	No data available
Carcinogenicity	:	No data available
Mutagenicity	:	No data available
Reproductive toxicity	:	No data available
Aspiration hazard	:	No data available
Viscosity, kinematic	:	No data available

SECTION 12: Ecological information

12.1. Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

12.4. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

12.5. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations.

UN number	:	Not applicable
UN proper shipping name	:	Not applicable
Transport hazard class(es)	:	Not applicable
Packing group	:	Not applicable
Environmental hazards	:	Not applicable
Special precautions for user	:	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:	
Additive 2 (Component F)	CAS-No. 134-03-2

15.2. SARA 313 Components

This product is not regulated by SARA

15.3. Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

15.4. California Proposition 65

This product does not contain any Proposition 65 chemicals.

15.5. WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products

Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other information

16.1. References

ECHA: http://echa.europa.eu/

TOXNET: http://toxnet.nlm.nih.gov/

eChemPortal: http://www.echemportal.org/

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1. Identification of the substance/mixture

Product form	:	Substance
Product name	:	Click-&-Go® Dde Protein Enrichment Kit
Kit component	:	Agarose SDS Wash Buffer (Component G)
Product code	:	CCT-1153

1.2. Identified uses of the substance or mixture

Identified Uses	:	Laboratory chemicals, manufacture of substances

1.3. Company/undertaking identification

Manufacturer
Vector Laboratories, Inc.
8341 E. Gelding Drive
Scottsdale, AZ 85260
T: (480) 584-3340
customerservice@vectorlabs.com

1.4. Emergency telephone number

Emergency number	:	US only (800) 227-6666 or outside of the US +1 (650) 697-3600 (7:15 AM - 5:00 PM PST)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2. GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

Not a hazardous substance or mixture.

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%
Agarose SDS wash buffer (Component G)	CAS-No.: N/A	N/A

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets.
This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

If inhaled	:	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
In case of skin contact	:	Rinse with plenty of water. Immediate medical attention is not required.
In case of eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
If swallowed	:	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

4.2. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

4.3. Most important symptoms and effects, both acute and delayed

Not Applicable

4.4. Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical.

5.2. Advice from firefighters

Standard procedure for chemical fires.

5.3. Further information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. See Section 8 for more detail.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 8 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Agarose SDS wash buffer (Component G)
No additional information available

8.2. Appropriate engineering controls

Exposure Limits : Contains no substances with occupational exposure limit values
Engineering measures : Ensure adequate ventilation, especially in confined areas

8.3. Individual protection measures/ Personal protective equipment

Respiratory protection:
In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards
Hand protection:
Wear suitable gloves. Glove material: Compatible chemical-resistant gloves
Eye/Face protection:
Wear tight sealing safety goggles
Skin/Body Protection:
Wear suitable protective clothing
Hygiene measures:
Handle in accordance with good industrial hygiene and safety practice
Control of Environmental exposure:
No special environmental precautions required

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance : Solid
Color : No data available
Odor : No data available
Odor threshold : No data available
pH : Not Applicable
Melting / Freezing points : °C and °F Mixture has not been tested
Initial boiling point & boiling range : °C and °F Mixture has not been tested
Flash point : °C and °F Mixture has not been tested
Evaporation rate : No data available

Flammability (solid, gas)	:	No data available
Explosive limits	:	Mixture has not been tested
Vapor pressure	:	Mixture has not been tested
Relative density	:	Mixture has not been tested
Water solubility	:	DMSO, DMF, DCM, THF, Chloroform
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

None known

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Hazardous reaction has not been reported

10.4. Conditions to avoid

No information available

10.5. Incompatible materials

No dangerous reaction known under conditions of normal use

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	No data available
Irritation	:	No data available
Corrosivity	:	No data available
Sensitization	:	No data available
STOT - Single Exposure	:	No data available
STOT - Repeated Exposure	:	No data available
Carcinogenicity	:	No data available
Mutagenicity	:	No data available
Reproductive toxicity	:	No data available
Aspiration hazard	:	No data available
Viscosity, kinematic	:	No data available

SECTION 12: Ecological information

12.1. Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

12.4. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

12.5. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations.

UN number	:	Not applicable
UN proper shipping name	:	Not applicable
Transport hazard class(es)	:	Not applicable
Packing group	:	Not applicable
Environmental hazards	:	Not applicable
Special precautions for user	:	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:	
Agarose SDS wash buffer (Component G)	CAS-No. N/A

15.2. SARA 313 Components

This product is not regulated by SARA

15.3. Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

15.4. California Proposition 65

This product does not contain any Proposition 65 chemicals.

15.5. WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products

Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other information

16.1. References

ECHA: http://echa.europa.eu/

TOXNET: http://toxnet.nlm.nih.gov/

eChemPortal: http://www.echemportal.org/

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: Identification

1.1. Identification of the substance/mixture

Product form	:	Substance
Product name	:	Click-&-Go® Dde Protein Enrichment Kit
Kit component	:	Hydrazine hydrate (Component I)
Synonym	:	Hydrazine, monohydrate
Product code	:	CCT-1153

1.2. Identified uses of the substance or mixture

Identified Uses	:	Laboratory chemicals, manufacture of substances

1.3. Company/undertaking identification

Manufacturer
Vector Laboratories, Inc.
8341 E. Gelding Drive
Scottsdale, AZ 85260
T: (480) 584-3340
customerservice@vectorlabs.com

1.4. Emergency telephone number

Emergency number	:	US only (800) 227-6666 or outside of the US +1 (650) 697-3600 (7:15 AM - 5:00 PM PST)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

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

Acute toxicity, Oral	:	Category 3, H301
Acute toxicity, Inhalation	:	Category 3, H331
Acute toxicity, Dermal	:	Category 3, H311
Skin Corrosion	:	Category 1B, H314
Serious eye damage	:	Category 1, H318
Skin sensitization	:	Category 1, H317
Carcinogenicity	:	Category 1B, H350
Acute aquatic toxicity	:	Category 1, H400
Chronic aquatic toxicity	:	Category 1, H410

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

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS-US):

Signal word (GHS-US): Danger

Hazard statement(s):

H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H350	May cause cancer

H410	Very toxic to aquatic life with long lasting effects.
Precautionary statement(s) :	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.

P281	Use personal protective equipment as required.
P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Hazardous components

Component		Classification	Concentration
Hydrazine hydrate Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)			
CAS-No. EC-No. Index-No.	10217-52-4 206-114-9 007-008-00-3	Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Skin Sens. 1; Carc. 1B; Aquatic Acute 1; Aquatic Chronic 1; H301 + H311 + H331, H314, H317, H350, H410	90 - 100 %

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

None

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%
Hydrazine hydrate (Component I)	CAS-No.: 10217-52-4	N/A

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets.
This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

If inhaled : Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

In case of skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

In case of eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Obtain medical attention if pain, blinking or redness persists.

If swallowed : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POSION CENTER or physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Swallowing a small amount of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical.

5.2. Advice from firefighters

Standard procedure for chemical fires.

5.3. Further information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. See Section 8 for more detail.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 8 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hydrazine hydrate (Component I)

No additional information available

8.2. Appropriate engineering controls

Exposure Limits :

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Hydrazine hydrate	10217-52-4	TWA	0.010000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory Tract cancer Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption		
		TWA	0.01 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract cancer Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption		
		TWA	1.000000 ppm 1.300000 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		Skin designation The value in mg/m3 is approximate.		
		C	0.030000 ppm 0.040000 mg/m3	USA. NIOSH Recommended Exposure Limits
		Potential Occupational Carcinogen See Appendix A 2 hour ceiling value		
		PEL	0.01 ppm 0.013 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin		

Engineering measures : Ensure adequate ventilation, especially in confined areas

8.3. Individual protection measures/ Personal protective equipment

Eye/face protection:

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

Skin protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: butyl-rubber
Minimum layer thickness: 0.3 mm
Break through time: 480 min
Material tested:Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm

Break through time: 30 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)
data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection:

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

Respiratory protection:

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

Control of Environmental exposure:

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

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	:	Liquid
Color	:	No data available
Odor	:	No data available
Odor threshold	:	No data available
pH	:	Not Applicable
Melting / Freezing points	:	°C and °F Mixture has not been tested
Initial boiling point & boiling range	:	°C and °F Mixture has not been tested
Flash point	:	96°C (205°F) closed cap
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Non-flammable

Explosive limits	:	Upper explosion limit: 99.99 %(V) Lower explosion limit: 3.5 %(V)
Vapor pressure	:	7 hPa (5 mmHg) at 25 °C (77 °F)
Vapor density	:	1.73 - (Air = 1.0)
Relative density	:	1.029 g/cm3
Water solubility	:	Soluble in water
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

None known

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Hazardous reaction has not been reported

10.4. Conditions to avoid

Extremely high or low temperatures

10.5. Incompatible materials

Strong reducing agents. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NOx)
Other decomposition products - No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity (inhalation, dermal)	:	No data available
Skin corrosion/irritation	:	No data available
Serious eye damage/eye irritation	:	No data available
Respiratory or skin sensitization	:	No data available
STOT - Single Exposure	:	No data available
STOT - Repeated Exposure	:	No data available
Carcinogenicity	:	This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.
Possible human carcinogen		
IARC	:	Group 2B: Possibly carcinogenic to humans (Hydrazine hydrate)
NTP	:	RAHC - Reasonably anticipated to be a human carcinogen. The reference note has been added by TD based on the background information of the NTP. (Hydrazine hydrate)
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.
Germ cell mutagenicity	:	Laboratory experiments have shown mutagenic effects.

Reproductive toxicity	:	Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.
Aspiration hazard	:	No data available
Additional information	:	RTECS: Not available Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Liver - Irregularities - Based on Human Evidence Liver - Irregularities - Based on Human Evidence

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

12.4. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

12.5. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

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

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. IATA / ADR / DOT-US / IMDG

DOT (US)	:	UN number: 2030 Class: 8 (6.1) Packing group: II Proper shipping name: Hydrazine aqueous solution Reportable Quantity (RQ): 1 lbs Poison Inhalation Hazard: No
IMDG	:	UN number: 2030 Class: 8 (6.1) Packing group: II EMS-No: F-A, S-B Proper shipping name: HYDRAZINE, AQUEOUS SOLUTION Marine pollutant: Yes
IATA	:	UN number: 2030 Class: 8 (6.1) Packing group: II Proper shipping name: Hydrazine, aqueous solution IATA Passenger: Not permitted for transport

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:	
Hydrazine hydrate (Component l)	CAS-No. 10217-52-4

15.2. SARA 302 Components

The following components are subject to reporting levels established by SARA Title III, Section 302:

Hydrazine hydrate, CAS-No.: 10217-52-4, Revision Date : 2007-07-01

15.3. SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Hydrazine hydrate, CAS-No.: 10217-52-4, Revision Date : 2007-07-01

15.4. SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

15.5. Massachusetts Right To Know Components

Hydrazine hydrate, CAS-No.: 10217-52-4, Revision Date : 2007-07-01

15.6. Pennsylvania Right To Know Components

Hydrazine hydrate, CAS-No.: 10217-52-4, Revision Date : 2007-07-01

15.7. New Jersey Right To Know Components

Hydrazine hydrate, CAS-No.: 10217-52-4, Revision Date : 2007-07-01

15.8. California Prop. 65 Components

Hydrazine hydrate, CAS-No.: 10217-52-4, Revision Date : 2007-07-01

SECTION 16: Other information

16.1. Other Information

Revision date: 12/21/2018

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

Acute Tox. Acute toxicity

Aquatic Acute Acute aquatic toxicity

Aquatic Chronic Chronic aquatic toxicity

Carc. Carcinogenicity

Eye Dam. Serious eye damage

H301 Toxic if swallowed.

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

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

HMIS Rating	:	Health hazard: 3 Chronic Health Hazard: * Flammability: 1 Physical Hazard 0
NFPA Rating	:	Health hazard: 3 Fire Hazard: 1 Reactivity Hazard: 0

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The information provided in this Safety Data Sheet is from available published sources and is believed to be accurate to the best of our knowledge at the date of its publication. The information given is designed only as 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