

# Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)  
Issue date: 09/25/2023



## SECTION 1: Identification

### 1.1. Identification of the substance/mixture

Product form : Substance  
Product name : Click-&-Go® Plus 488 OPP  
Kit component : OPP Reagent (Component A)  
Product code : CCT-1493

### 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](mailto: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	%
OPP Reagent (Component A)	CAS-No.: 1416561-90-4	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

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## 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 (CO<sub>2</sub>). 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.

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## 7.3. Specific end use(s)

For research use only.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### OPP Reagent (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

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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.

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## 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 accordance with 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:

OPP Reagent (Component A)	CAS-No. 1416561-90-4	N/A
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## 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.

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## SECTION 1: Identification

### 1.1. Identification of the substance/mixture

Product form : Substance  
Product name : Click-&-Go® Plus 488 OPP  
Kit component : AZDye 488 Azide Plus (Component B)  
Product code : CCT-1493

### 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](mailto: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	%
AZDye 488 Azide Plus (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

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## 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 (CO<sub>2</sub>). 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.



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## 7.3. Specific end use(s)

For research use only.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### AZDye 488 Azide Plus (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 to yellow  
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

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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	: Water, DMSO, DMF
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.

# Safety Data Sheet

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## 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 accordance with 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:

AZDye 488 Azide Plus (Component B)	CAS-No. N/A	N/A
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## 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.

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## SECTION 1: Identification

### 1.1. Identification of the substance/mixture

Product form : Substance  
Product name : Click-&-Go® Plus 488 OPP  
Kit component : Reaction Buffer (Component C)  
Product code : CCT-1493

### 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](mailto: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	%
Reaction Buffer (Component C)	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

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## 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 (CO<sub>2</sub>). 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.

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## 7.3. Specific end use(s)

For research use only.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Reaction Buffer (Component C)

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

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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.



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## 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 accordance with 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:

Reaction Buffer (Component C)	CAS-No. N/A
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## 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.

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## SECTION 1: Identification

### 1.1. Identification of the substance/mixture

Product form : Substance  
Product name : Click-&-Go® Plus 488 OPP  
Kit component : Copper Catalyst (Component D)  
Synonym : Cupric Sulfate Anhydrous; Cupric Sulfate; Copper Monosulfate  
Product code : CCT-1493

### 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](mailto: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

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## 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 Catalyst (Component D)	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 (l)(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 POISON 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 (CO<sub>2</sub>). Foam. Dry chemical.

### 5.2. Advice from firefighters

Standard procedure for chemical fires.

### 5.3. Further information

No data available

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## 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 Catalyst (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

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## 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.

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## 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 accordance with 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

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

## 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 Catalyst (Component D)	CAS-No. 7758-99-8
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### 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

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## 1: Identification

### 1.1. Identification of the substance/mixture

Product form : Substance  
Product name : Click-&-Go® Plus 488 OPP  
Kit component : Reducing Agent (Component E)  
Synonym : Sodium Ascorbate  
Product code : CCT-1493

### 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](mailto: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	%
Reducing Agent (Component E)	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 (l)(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

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## 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 (CO<sub>2</sub>). 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.

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## 7.3. Specific end use(s)

For research use only.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Reducing Agent (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 : 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

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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.

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## 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 accordance with 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:

Reducing Agent (Component E)	CAS-No. 134-03-2
------------------------------	------------------

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## 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.

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## SECTION 1: Identification

### 1.1. Identification of the substance/mixture

Product form : Substance  
Product name : Click-&-Go® Plus 488 OPP  
Kit component : Wash Buffer (Component F)  
Product code : CCT-1493

### 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](mailto: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	%
Wash Buffer (Component F)	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



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## 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 (CO<sub>2</sub>). 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.

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## 7.3. Specific end use(s)

For research use only.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Wash Buffer (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 : 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

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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

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LD50 (inhalation, rat/mouse)
Sodium azide	27 mg/kg	n/a	n/a

### 11.2. Principal Routes of Exposure

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

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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 accordance with 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 : Not applicable  
73/78 and the IBC Code

## 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:

Wash Buffer (Component F)	CAS-No. N/A
---------------------------	-------------

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Component	TSCA
Sodium azide CAS 26628-22-8 Weight % <0.1	Listed

## 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.

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## SECTION 1: Identification

### 1.1. Identification of the substance/mixture

Product form : Substance  
Product name : Click-&-Go® Plus 488 OPP  
Kit component : Hoechst 33342 (Component G)  
Synonym : Hoechst Dye  
Product code : CCT-1493

### 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](mailto: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 2A

### 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

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

P330 - If swallowed, rinse mouth

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

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## 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	%
Hoechst 33342 (Component G)	CAS-No.: 23491-52-3	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 (l)(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 POISON 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

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## 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

#### Hoechst 33342 (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



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## 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.

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## 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 accordance with 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

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

## 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:

Hoechst 33342 (Component G)

CAS-No. 23491-52-3

### 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.

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

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