Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product name

Control low

Company/undertaking identification

Novus Biologicals, LLC 107771 E Easter Ave Centennial, CO 80112 USA

Emergency Phone: 1-888-506-6887 Email: technical@novusbio.com

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Environmental hazards

Revision date 26-Jun-2019 Page 1/9

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Component	CAS No.	Common name	EINECS-No	Weight-%
Kathon	96118-96-6	-	-	< 0.0015
96118-96-6 (< 0.0015)				

We recommend handling all chemicals with caution.

Revision date 26-Jun-2019 Page 2/9

SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse skin with water. Immediate medical attention is not required.

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

and easy to do. Continue rinsing.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media

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

No information available.

Special hazards arising from the substance or mixture

Not known

Protective equipment and precautions for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

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 information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Revision date 26-Jun-2019 Page 3/9

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

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

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Kathon	None	None	None	None

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Kathon	None	None	None

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Exposure controls

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 protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

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

Environmental exposure controls

No special environmental precautions required.

Revision date 26-Jun-2019 Page 4/9

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance liquid Odor No data **Odor Threshold** No data **Molecular Weight** No data 6-8 pН

°C No data °F No data Melting point / melting range Boiling point / boiling range °C No data °F No data Flash point °C No data °F No data **Autoignition Temperature** °C No data °F No data °C No data **Decomposition temperature** °F No data

Evaporation rate No data Flammability (solid, gas) No data No data **Upper explosion limit** Lower explosion limit No data **Vapor Pressure** No data Vapor density No data Relative density No data Specific gravity No data No data Solubility Partition coefficient: No data n-octanol/water

Viscosity No data **Explosive properties** No data No data Oxidizing properties

Other information

No data.

SECTION 10: Stability and reactivity

Reactivity None known.

Stable under normal conditions. **Chemical stability**

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

No information available. Conditions to avoid

Incompatible materials No dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No data available.

26-Jun-2019 Page 5/9 **Revision date**

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Kathon	= 53 mg/kg (Rat)	No data available	No data available

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritationData are conclusive but insufficient for classification

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Kathon	No data available	No data available	No data available	No data available	No data available

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects No information available.

Revision date 26-Jun-2019 Page 6 / 9

SECTION 13: Disposal considerations

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

IATA / ADR / DOT-US / IMDG

Not classified as dangerous 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.

Revision date 26-Jun-2019 Page 7/9

SECTION 15: Regulatory information

Component	US TSCA
Kathon	-
96118-96-6 (< 0.0015)	

US Federal Regulations

SARA 313

This product is not regulated by SARA.

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

This product contains the following HAPs

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Kathon	96118-96-6	Not Listed	Not Listed

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number 4

Revision date 26-Jun-2019

For research use only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held

Revision date 26-Jun-2019 Page 8/9

liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet



Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product name

Control High

Company/undertaking identification

Novus Biologicals, LLC 107771 E Easter Ave Centennial, CO 80112

USA

Emergency Phone : 1-888-506-6887 Email: <u>technical@novusbio.com</u>

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Revision date

Environmental hazards

26-Jun-2019

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Component	CAS No.	Common name	EINECS-No	Weight-%
Kathon	96118-96-6	-	-	<0.0015
96118-96-6 (< 0.0015)				

We recommend handling all chemicals with caution.

Revision date 26-Jun-2019 Page 2/9

SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse skin with water. Immediate medical attention is not required.

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

and easy to do. Continue rinsing.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

No information available.

Special hazards arising from the substance or mixture

Not known

Protective equipment and precautions for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

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 information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Revision date 26-Jun-2019 Page 3 / 9

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

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

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Kathon	None	None	None	None

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Kathon	None	None	None

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

In case of insufficient ventilation wear respirators and components tested and Respiratory protection

approved under appropriate government standards.

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

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

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

Environmental exposure controls

No special environmental precautions required.

26-Jun-2019 **Revision date** Page 4/9

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance liquid Odor No data **Odor Threshold** No data **Molecular Weight** No data 6-8 pН

°C No data °F No data Melting point / melting range Boiling point / boiling range °C No data °F No data Flash point °C No data °F No data **Autoignition Temperature** °C No data °F No data °C No data **Decomposition temperature** °F No data

Evaporation rate No data Flammability (solid, gas) No data No data **Upper explosion limit** Lower explosion limit No data **Vapor Pressure** No data Vapor density No data Relative density No data Specific gravity No data No data Solubility Partition coefficient: No data

n-octanol/water

Viscosity No data **Explosive properties** No data No data Oxidizing properties

Other information

No data.

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

No information available. Conditions to avoid

Incompatible materials No dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No data available.

26-Jun-2019 Page 5/9 **Revision date**

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Kathon	= 53 mg/kg (Rat)	No data available	No data available

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritationData are conclusive but insufficient for classification

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Kathon	No data available	No data available	No data available	No data available	No data available

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects No information available.

Revision date 26-Jun-2019 Page 6 / 9

SECTION 13: Disposal considerations

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

IATA / ADR / DOT-US / IMDG

Not classified as dangerous 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.

26-Jun-2019 Page 7/9 **Revision date**

SECTION 15: Regulatory information

Component	US TSCA
Kathon 96118-96-6 (< 0.0015)	-

US Federal Regulations

SARA 313

This product is not regulated by SARA.

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

This product contains the following HAPs

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Kathon	96118-96-6	Not Listed	Not Listed

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number

Revision date 26-Jun-2019

For research use only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held

26-Jun-2019 Revision date Page 8/9 liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR **PURPOSE"**

End of Safety Data Sheet

Revision date



Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product name

HRP Conjugate

Company/undertaking identification

Novus Biologicals, LLC 107771 E Easter Ave Centennial, CO 80112 USA

Emergency Phone: 1-888-506-6887

Email: technical@novusbio.com

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Revision date

Environmental hazards

26-Jun-2019

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Component	CAS No.	Common name	EINECS-No	Weight-%
Kathon	96118-96-6	-	-	<0.0015
96118-96-6 (< 0.0015)				

We recommend handling all chemicals with caution.

Revision date 26-Jun-2019 Page 2 /

SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse skin with water. Immediate medical attention is not required.

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

and easy to do. Continue rinsing.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

No information available.

Special hazards arising from the substance or mixture

Not known

Protective equipment and precautions for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

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 information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Revision date 26-Jun-2019 Page 3/9

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

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

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Kathon	None	None	None	None

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations	
Kathon	None	None	None	

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

In case of insufficient ventilation wear respirators and components tested and Respiratory protection

approved under appropriate government standards.

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

Eye protection Tight sealing safety goggles.

Wear suitable protective clothing. **Skin and Body Protection**

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

Environmental exposure controls

No special environmental precautions required.

26-Jun-2019 **Revision date** Page 4/9

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance liquid Odor No data **Odor Threshold** No data **Molecular Weight** No data 6-8 pН

°C No data °F No data Melting point / melting range Boiling point / boiling range °C No data °F No data Flash point °C No data °F No data **Autoignition Temperature** °C No data °F No data °C No data **Decomposition temperature** °F No data

Evaporation rate No data Flammability (solid, gas) No data No data **Upper explosion limit** Lower explosion limit No data **Vapor Pressure** No data Vapor density No data Relative density No data Specific gravity No data No data Solubility Partition coefficient: No data

n-octanol/water

Viscosity No data **Explosive properties** No data No data Oxidizing properties

Other information

No data.

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

No information available. Conditions to avoid

Incompatible materials No dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No data available.

26-Jun-2019 Page 5/9 **Revision date**

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Kathon	= 53 mg/kg (Rat)	No data available	No data available

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritationData are conclusive but insufficient for classification

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Kathon	No data available	No data available	No data available	No data available	No data available

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects No information available.

Revision date 26-Jun-2019 Page 6 / 9

SECTION 13: Disposal considerations

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

IATA / ADR / DOT-US / IMDG

Not classified as dangerous 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.

26-Jun-2019 Page 7/9 **Revision date**

SECTION 15: Regulatory information

Component	US TSCA
Kathon	-
96118-96-6 (< 0.0015)	

US Federal Regulations

SARA 313

This product is not regulated by SARA.

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

This product contains the following HAPs

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Kathon	96118-96-6	Not Listed	Not Listed

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number

Revision date 26-Jun-2019

For research use only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held

Revision date 26-Jun-2019 Page 8/9

liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR **PURPOSE"**

End of Safety Data Sheet

Page 9/9

Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product name

Coated Microwell Strips

Company/undertaking identification

Novus Biologicals, LLC 107771 E Easter Ave Centennial, CO 80112 USA

00,1

Emergency Phone: 1-888-506-6887 Email: technical@novusbio.com

For Research Use Only. Not for use in diagnostic procedures.

SECTION 2: Hazards identification

GHS - Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Revision date 21-Apr-2017 Page 1/7

Environmental hazards

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health.

SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse with plenty of water . Immediate medical attention is not required.

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

and easy to do.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

Revision date 21-Apr-2017 Page 2/7

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Water spray. Carbon dioxide (CO2). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Special hazards arising from the substance or mixture Not known.

Advice for fire-fighters Standard procedure for chemical fires.

SECTION 6: Accidental release measures

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.

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. .

Conditions for safe storage, including any incompatibilities

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

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas

Exposure controls

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 protection Tight sealing safety goggles

 Revision date
 21-Apr-2017
 Page 3 / 7

Skin and Body Protection Wear suitable protective clothing

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

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance Solid

No data available Odor

Melting point / melting range Boiling point / boiling range

Flash point

Autoignition Temperature Decomposition temperature

Evaporation rate

Flammability (solid, gas)

Upper explosion limit Lower explosion limit **Vapor Pressure** Relative density Specific gravity

Solubility Partition coefficient:

n-octanol/water

Explosive properties

°C Mixture has not been tested °C Mixture has not been tested

°C Mixture has not been tested °C Mixture has not been tested

°C Mixture has not been tested

No data available No data available

Mixture has not been tested Mixture has not been tested Mixture has not been tested Mixture has not been tested

No data available No data available No data available

Mixture has not been tested

Other information No data available °F Mixture has not been tested °F Mixture has not been tested °F Mixture has not been tested °F Mixture has not been tested

°F Mixture has not been tested

SECTION 10: Stability and reactivity

None known. Reactivity

Stable under normal conditions. **Chemical stability**

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

Conditions to avoid No information available.

No dangerous reaction known under conditions of normal use. Incompatible materials

Hazardous decomposition

products

No data available.

Revision date 21-Apr-2017 Page 4/7

SECTION 11: Toxicological information

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Irritation Conclusive but not sufficient for classification

Corrosivity Conclusive but not sufficient for classification

Sensitization Conclusive but not sufficient for classification

STOT - Single Exposure Conclusive but not sufficient for classification

STOT - Repeated Exposure Conclusive but not sufficient for classification

Carcinogenicity Conclusive but not sufficient for classification

Mutagenicity Conclusive but not sufficient for classification

Reproductive toxicity Conclusive but not sufficient for classification

Aspiration hazard Conclusive but not sufficient for classification

SECTION 12: Ecological information

Toxicity

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

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

Not Applicable.

Other adverse effects No information available.

SECTION 13: Disposal considerations

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

 Revision date
 21-Apr-2017
 Page 5/7

SECTION 14: Transport information

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

US Federal Regulations

SARA 313

This product is not regulated by SARA.

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

This product does not contains HAPs.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

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

Reason for revision SDS sections updated.

Revision number 2

Revision date 21-Apr-2017

For Research Use Only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/

Revision date 21-Apr-2017 Page 6 / 7

• LOLI database: https://www.chemadvisor.com/loli-database

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE"

End of Safety Data Sheet

Revision date 21-Apr-2017 Page 7/7



Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product name

Standard

Company/undertaking identification

Novus Biologicals, LLC 107771 E Easter Ave Centennial, CO 80112

USA

Emergency Phone: 1-888-506-6887 Email: technical@novusbio.com

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Environmental hazards

Revision date 26-Jun-2019 Page 1 /

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Component	CAS No.	Common name	EINECS-No	Weight-%
Kathon	96118-96-6	-	-	<0.0015
96118-96-6 (< 0.0015)				

We recommend handling all chemicals with caution.

Revision date 26-Jun-2019 Page 2/9

SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse skin with water. Immediate medical attention is not required.

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

and easy to do. Continue rinsing.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

No information available.

Special hazards arising from the substance or mixture

Not known

Protective equipment and precautions for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

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 information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Revision date 26-Jun-2019 Page 3/9

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

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

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Kathon	None	None	None	None

Chemical Name Brazil - OEL - TWAs (LTs)		Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations	
Kathon	None	None	None	

Engineering Measures Ensure ad

Ensure adequate ventilation, especially in confined areas.

Exposure controls

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 protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

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

Environmental exposure controls

No special environmental precautions required.

Revision date 26-Jun-2019 Page 4/9

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance liquid Odor No data **Odor Threshold** No data **Molecular Weight** No data 6-8 pН

°C No data °F No data Melting point / melting range Boiling point / boiling range °C No data °F No data Flash point °C No data °F No data **Autoignition Temperature** °C No data °F No data °C No data **Decomposition temperature** °F No data

Evaporation rate No data Flammability (solid, gas) No data No data **Upper explosion limit** Lower explosion limit No data **Vapor Pressure** No data Vapor density No data **Relative density** No data Specific gravity No data No data Solubility Partition coefficient: No data

n-octanol/water

Viscosity No data **Explosive properties** No data No data Oxidizing properties

Other information

No data.

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

No information available. Conditions to avoid

Incompatible materials No dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No data available.

26-Jun-2019 Page 5/9 **Revision date**

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50	
Kathon	= 53 mg/kg (Rat)	No data available	No data available	

Principal Routes of Exposure

Data are conclusive but insufficient for classification **Acute toxicity**

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritationData are conclusive but insufficient for classification

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) - single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) - repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Data are conclusive but insufficient for classification Reproductive toxicity

Data are conclusive but insufficient for classification **Aspiration hazard**

SECTION 12: Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Kathon	No data available	No data available	No data available	No data available	No data available

No information available. Mobility in soil

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects No information available.

26-Jun-2019 Revision date Page 6/9

SECTION 13: Disposal considerations

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

IATA / ADR / DOT-US / IMDG

Not classified as dangerous in the meaning of transport regulations

UN number Not Applicable **UN proper shipping name** Not Applicable Transport hazard class(es) Not Applicable Not Applicable Packing group

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.

26-Jun-2019 Page 7/9 **Revision date**

SECTION 15: Regulatory information

Component	US TSCA
Kathon	-
96118-96-6 (< 0.0015)	

US Federal Regulations

SARA 313

This product is not regulated by SARA.

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

This product contains the following HAPs

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)	
Kathon	96118-96-6	Not Listed	Not Listed	

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number

Revision date 26-Jun-2019

For research use only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held

26-Jun-2019 Revision date Page 8/9 liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet

Revision date 26-Jun-2019 Page 9/9

Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product name

Sample Diluent

Company/undertaking identification

Novus Biologicals, LLC 107771 E Easter Ave Centennial, CO 80112

USA

Emergency Phone: 1-888-506-6887 Email: technical@novusbio.com

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Revision date

Environmental hazards

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Component	CAS No.	Common name	EINECS-No	Weight-%
Kathon	96118-96-6	-	-	< 0.0015
96118-96-6 (< 0.0015)				

We recommend handling all chemicals with caution.

Revision date 26-Jun-2019 Page 2/9

SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse skin with water. Immediate medical attention is not required.

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

and easy to do. Continue rinsing.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

No information available.

Special hazards arising from the substance or mixture

Not known

Protective equipment and precautions for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

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 information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Revision date 26-Jun-2019 Page 3/9

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

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

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Kathon	None	None	None	None

Chemical Name Brazil - OEL - TWAs (LTs)		Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations	
Kathon	None	None	None	

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

In case of insufficient ventilation wear respirators and components tested and Respiratory protection

approved under appropriate government standards.

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

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

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

Environmental exposure controls

No special environmental precautions required.

26-Jun-2019 **Revision date** Page 4/9

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

AppearanceliquidOdorNo dataOdor ThresholdNo dataMolecular WeightNo datapH6-8

pН °C No data °F No data Melting point / melting range Boiling point / boiling range °C No data °F No data Flash point °C No data °F No data **Autoignition Temperature** °C No data °F No data °C No data **Decomposition temperature** °F No data

Evaporation rate No data Flammability (solid, gas) No data No data **Upper explosion limit** Lower explosion limit No data **Vapor Pressure** No data Vapor density No data **Relative density** No data Specific gravity No data No data Solubility Partition coefficient: No data

n-octanol/water

Viscosity No data
Explosive properties No data
Oxidizing properties No data

Other information

No data.

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

Conditions to avoid No information available.

Incompatible materialsNo dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No data available.

Revision date 26-Jun-2019 Page 5 / 9

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50	
Kathon	= 53 mg/kg (Rat)	No data available	No data available	

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritationData are conclusive but insufficient for classification

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Kathon	No data available	No data available	No data available	No data available	No data available

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects No information available.

Revision date 26-Jun-2019 Page 6 / 9

SECTION 13: Disposal considerations

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

IATA / ADR / DOT-US / IMDG

Not classified as dangerous 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.

26-Jun-2019 Page 7/9 **Revision date**

SECTION 15: Regulatory information

Component	US TSCA
Kathon 96118-96-6 (< 0.0015)	-

US Federal Regulations

SARA 313

This product is not regulated by SARA.

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

This product contains the following HAPs

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Kathon	96118-96-6	Not Listed	Not Listed

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number

Revision date 26-Jun-2019

For research use only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

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26-Jun-2019 Revision date Page 8/9 liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet

Revision date 26-Jun-2019 Page 9/9



Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product name

Substrate Solution

Company/undertaking identification

Novus Biologicals, LLC 107771 E Easter Ave Centennial, CO 80112 USA

Emergency Phone: 1-888-506-6887 Email: technical@novusbio.com

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SECTION 2: Hazards identification

GHS - Classification

Signal Word DANGER

Hazard pictograms



Health hazards

Reproductive Toxicity Category 1B

Revision date 19-Jun-2019 Page 1 /

Physical hazards

Not Hazardous

Environmental hazards

Not Hazardous

Hazard Statements

H360D - May damage the unborn child

Precautionary Statements

Prevention

P201 - Obtain special instructions before use

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P202 - Do not handle until all safety precautions have been read and understood

Response

P308 + P313 - IF exposed or concerned: Get medical advice/attention

Storage

Not Applicable

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards

Not Applicable

HMIS

<u> </u>	
Health	4 * Chronic Hazard
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Component	CAS No.	Common name	EINECS-No	Weight-%
1-Methyl-2-pyrrolidone 872-50-4 (<5)	872-50-4	-	212-828-1	<5

We recommend handling all chemicals with caution.

Revision date 19-Jun-2019 Page 2/9

SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse with plenty of water. Immediate medical attention is not required.

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

and easy to do. Continue rinsing.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

H360D - May damage the unborn child

Indication of any immediate medical attention and special treatment needed

Wear protective gloves/protective clothing and eye/face protection. IF exposed or concerned: Get medical advice/attention.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical. No information available.

Special hazards arising from the substance or mixture

Not known.

Protective equipment and precautions for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

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

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Revision date 19-Jun-2019 Page 3 / 9

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

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

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
1-Methyl-2-pyrrolidone	None	None	None	None

	Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	lings Brazil - OEL - Skin Designations	
ſ	1-Methyl-2-pyrrolidone	None	None	None	

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

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 protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

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

Environmental exposure controls

No special environmental precautions required.

Revision date 19-Jun-2019 Page 4/9

SECTION 9: Physical and chemical properties

°F No data

Information on basic physical and chemical properties

Appearance liquid Odor No data **Odor Threshold** No data **Molecular Weight** No data 3.6-3.8 pН

°C No data Melting point / melting range Boiling point / boiling range °C No data Flash point °C No data **Autoignition Temperature** °C No data °C No data **Decomposition temperature**

Evaporation rate No data Flammability (solid, gas) No data No data **Upper explosion limit** Lower explosion limit No data **Vapor Pressure** No data Vapor density No data **Relative density** No data Specific gravity No data No data Solubility Partition coefficient: No data

n-octanol/water

Viscosity No data **Explosive properties** No data No data Oxidizing properties

Other information

No data.

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

No information available. Conditions to avoid

Incompatible materials No dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No data available.

19-Jun-2019 Page 5/9 **Revision date**

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
1-Methyl-2-pyrrolidone	= 3914 mg/kg (Rat)	No data available	>5.1mg/L(Rat)

Principal Routes of Exposure

Data are conclusive but insufficient for classification **Acute toxicity**

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritationData are conclusive but insufficient for classification

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) - single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) - repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Product is or contains a chemical which is a known or suspected reproductive Reproductive toxicity

hazard

Data are conclusive but insufficient for classification **Aspiration hazard**

SECTION 12: Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
1-Methyl-2-pyrrolidone	Desmodesmus subspicatus EC50>500 mg/L (72	Daphnia magna EC50=4897 mg/L (48 h)	No data available	No data available	logPow-0.46

Mobility in soil No information available.

Persistence and degradability No information available.

No information available. Bioaccumulative potential

Results of PBT and vPvB assessment

No information available.

Other adverse effects No information available.

19-Jun-2019 Revision date Page 6/9

SECTION 13: Disposal considerations

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

IATA / ADR / DOT-US / IMDG

Not classified as dangerous in the meaning of transport regulations

UN number Not Applicable UN proper shipping name Not Applicable Transport hazard class(es) Not Applicable Not Applicable Packing group

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.

19-Jun-2019 Page 7/9 **Revision date**

SECTION 15: Regulatory information

Component	US TSCA	
1-Methyl-2-pyrrolidone	Listed	
872-50-4 (<5)		

US Federal Regulations

SARA 313

This product contains the following toxic chemical(s) subject to the notification requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report on annual emissions of specified chemicals and chemical categories. Please note that if you repackage, or otherwise redistribute, this product to industrial customers, a notice similar to this one should be sent to those customers.

Chemical Name	CAS No.	<u>Weight-%</u>	SARA 313 - Threshold
			<u>Values</u>
1-Methyl-2-pyrrolidone	872-50-4	<5	1.0

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

This product does not contains HAPs.

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name_	CAS No.	<u>Weight-%</u>	<u>Category</u>
1-Methyl-2-pyrrolidone	872-50-4	<u></u> <5	Developmental

WHMIS Hazard Class

D2A - Very toxic materials

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
1-Methyl-2-pyrrolidone	872-50-4	Not Listed	Not Listed

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number

Revision date 19-Jun-2019

For research use only. Not for use in diagnostic procedures.

References

• ECHA: http://echa.europa.eu/

Revision date 19-Jun-2019 Page 8/9

- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet

Revision date 19-Jun-2019 Page 9/9



Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product name

Stop Solution

Company/undertaking identification

Novus Biologicals, LLC 107771 E Easter Ave Centennial, CO 80112 USA

Emergency Phone: 1-888-506-6887 Email: technical@novusbio.com

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS - Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Environmental hazards

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Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Component	CAS No.	Common name	EINECS-No	Weight-%
Hydrogen chloride	7647-01-0	-	231-595-7	<10.0
7647-01-0 (<10.0)				

We recommend handling all chemicals with caution.

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SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse with plenty of water. Immediate medical attention is not required.

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

and easy to do. Continue rinsing.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

No information available.

Special hazards arising from the substance or mixture

Not known.

Protective equipment and precautions for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

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

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Revision date 19-Jun-2019 Page 3/9

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

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

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Hydrogen chloride	None	5 ppm	None	None
		7 mg/m ³		

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Hydrogen chloride	None	4 ppm	None
		5.5 mg/m ³	

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

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 protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

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

Environmental exposure controls

No special environmental precautions required.

Revision date 19-Jun-2019 Page 4/9

SECTION 9: Physical and chemical properties

°F No data

Information on basic physical and chemical properties

Appearance liquid
Odor No data
Odor Threshold No data
Molecular Weight No data
pH No data
Melting point / melting range °C No d

Melting point / melting range

Boiling point / boiling range
Flash point

Autoignition Temperature

C No data

Evaporation rate No data Flammability (solid, gas) No data **Upper explosion limit** No data Lower explosion limit No data **Vapor Pressure** No data Vapor density No data **Relative density** No data Specific gravity No data No data Solubility Partition coefficient: No data

n-octanol/water

Viscosity No data
Explosive properties No data
Oxidizing properties No data

Other information

No data.

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

Conditions to avoid No information available.

Incompatible materialsNo dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No data available.

Revision date 19-Jun-2019 Page 5/9

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrogen chloride	238 - 277 mg/kg (Rat)	No data available	=1.68mg/L(Rat)

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritationData are conclusive but insufficient for classification

Respiratory or skin sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Hydrogen chloride	No data available	No data available	No data available	No data available	No data available

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects No information available.

Revision date 19-Jun-2019 Page 6/9

SECTION 13: Disposal considerations

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

IATA / ADR / DOT-US / IMDG

Not classified as dangerous 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.

19-Jun-2019 Page 7/9 **Revision date**

SECTION 15: Regulatory information

Component	US TSCA
Hydrogen chloride	Listed
7647-01-0 (<10.0)	

US Federal Regulations

SARA 313

This product contains the following toxic chemical(s) subject to the notification requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report on annual emissions of specified chemicals and chemical categories. Please note that if you repackage, or otherwise redistribute, this product to industrial customers, a notice similar to this one should be sent to those customers.

Chemical Name	CAS No.	<u>Weight-%</u>	SARA 313 - Threshold
			<u>Values</u>
Hydrogen chloride	7647-01-0	<10.0	1.0

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

This product contains the following HAPs

<u>Component</u>	CAS No.	<u>Weight-%</u>	HAPS data
Hydrogen chloride	7647-01-0	<10.0	Present
7647-01-0 (<10.0)			

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Hydrogen chloride	7647-01-0	Schedule D2	Not Listed

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number

Revision date 19-Jun-2019

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References

Revision date 19-Jun-2019 Page 8/9

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet

Revision date 19-Jun-2019 Page 9/9

Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product name

Wash Buffer

Company/undertaking identification

Novus Biologicals, LLC 107771 E Easter Ave Centennial, CO 80112

USA

Emergency Phone: 1-888-506-6887 Email: technical@novusbio.com

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Environmental hazards

Revision date 26-Jun-2019 Page 1/9

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Component	CAS No.	Common name	EINECS-No	Weight-%
Kathon	96118-96-6	-	-	<0.0015
96118-96-6 (< 0.0015)				

We recommend handling all chemicals with caution.

26-Jun-2019 Page 2/9 **Revision date**

SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse skin with water. Immediate medical attention is not required.

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

and easy to do. Continue rinsing.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical. No information available.

Special hazards arising from the substance or mixture

Not known

Protective equipment and precautions for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

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 information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Revision date 26-Jun-2019 Page 3/9

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

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

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Kathon	None	None	None	None

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Kathon	None	None	None

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

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 protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

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

Environmental exposure controls

No special environmental precautions required.

Revision date 26-Jun-2019 Page 4/9

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance liquid Odor No data **Odor Threshold** No data **Molecular Weight** No data 6-8 pН

°C No data °F No data Melting point / melting range Boiling point / boiling range °C No data °F No data Flash point °C No data °F No data **Autoignition Temperature** °C No data °F No data °C No data **Decomposition temperature** °F No data

Evaporation rate No data Flammability (solid, gas) No data No data **Upper explosion limit** Lower explosion limit No data **Vapor Pressure** No data Vapor density No data **Relative density** No data Specific gravity No data No data Solubility Partition coefficient: No data

n-octanol/water

Viscosity No data **Explosive properties** No data No data Oxidizing properties

Other information

No data.

SECTION 10: Stability and reactivity

Reactivity None known.

Stable under normal conditions. **Chemical stability**

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

No information available. Conditions to avoid

Incompatible materials No dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No data available.

26-Jun-2019 Page 5/9 **Revision date**

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Kathon	= 53 mg/kg (Rat)	No data available	No data available

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritationData are conclusive but insufficient for classification

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Kathon	No data available	No data available	No data available	No data available	No data available

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects No information available.

Revision date 26-Jun-2019 Page 6/9

SECTION 13: Disposal considerations

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

IATA / ADR / DOT-US / IMDG

Not classified as dangerous in the meaning of transport regulations

UN number Not Applicable UN proper shipping name Not Applicable Transport hazard class(es) Not Applicable Not Applicable Packing group

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.

26-Jun-2019 Page 7/9 **Revision date**

SECTION 15: Regulatory information

Component	US TSCA
Kathon	-
96118-96-6 (< 0.0015)	

US Federal Regulations

SARA 313

This product is not regulated by SARA.

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

This product contains the following HAPs

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Kathon	96118-96-6	Not Listed	Not Listed

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number

Revision date 26-Jun-2019

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References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

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26-Jun-2019 Revision date Page 8/9 liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR **PURPOSE"**

End of Safety Data Sheet

26-Jun-2019 Page 9/9