



## Kit Summary

**Product Cat #: X1545K**

**Product name** BrdU Immunohistochemistry Kit

**Kit Components:**

**4X Trypsin Concentrate**

Chemical Name	EC-No	CAS-No	Weight %	Classification (67/548)	Classification (Reg. 1272/2008)	REACH Registration Number
Trypsin	232-650-8	9002-07-7	0.2	Xi; R36/37/38 R42	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334)	No data available
2-Chloroacetamide	201-174-2	79-07-2	0.1	T; R25 R43 Repr.Cat.3; R62	Acute Tox. 3 (H301) Skin Sens. 1 (H317) Repr. 2 (H361f)	No data available

**Trypsin Dilution Buffer**

Chemical Name	EC-No	CAS-No	Weight %	Classification (67/548)	Classification (Reg. 1272/2008)	REACH Registration Number
2-Chloroacetamide	201-174-2	79-07-2	0.1	T; R25 R43 Repr.Cat.3; R62	Acute Tox. 3 (H301) Skin Sens. 1 (H317) Repr. 2 (H361f)	No data available



### Denaturing Solution

Chemical Name	EC-No	CAS-No	Weight %	Classification (67/548)	Classification (Reg. 1272/2008)	REACH Registration Number
Hydrochloric acid	231-595-7	7647-01-0	18	C; R34 Xi; R37	STOT SE 3 (H335) Skin Corr. 1B (H314)	No data available

### Block Buffer

Chemical Name	EC-No	CAS-No	Weight %	Classification (67/548)	Classification (Reg. 1272/2008)	REACH Registration Number
2-Chloroacetamide	201-174-2	79-07-2	0.1	T; R25 R43 Repr.Cat.3; R62	Acute Tox. 3 (H301) Skin Sens. 1 (H317) Repr. 2 (H361f)	No data available

### Krystalon Mounting Media

Chemical Name	EC-No	CAS-No	Weight %	Classification (67/548)	Classification (Reg. 1272/2008)	REACH Registration Number
Toluene	203-625-9	108-88-3	50	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67	STOT SE 3 (H336) STOT RE 2 (H373) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Repr. 2 (H361d) Flam Liq. 1 (H224)	No data available



## DAB Concentrate

Chemical Name	EC-No	CAS-No	Weight %	Classification (67/548)	Classification (Reg. 1272/2008)	REACH Registration Number
3,3'-Diaminobenzidine tetrahydrochloride	808-580-4	868272-85-9	5	Xi; R36/37/38	Eye Irrit. 2 (H319) STOT SE 3 (H335) Skin Irrit. 2 (H315)	No data available

### GHS / CLP - GHS – Classification



### Signal Word

Danger

### Hazard statements

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H361 - Suspected of damaging fertility or the unborn child.

H317 - May cause an allergic skin reaction.

H335 - May cause respiratory irritation.

H373 - May cause damage to organs through prolonged or repeated exposure.

H304 - May be fatal if swallowed and enters airways.

H224 - Extremely flammable liquid and vapor.

### Precautionary Statements - EU (§28, 1272/2008)

P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention.

P312 - Call a POISON CENTER or doctor/ physician if you feel unwell.

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

P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P331 - Do NOT induce vomiting.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

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

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P362 - Take off contaminated clothing and wash before reuse.



- P271 - Use only outdoors or in a well-ventilated area.
- P270 - Do not eat, drink or smoke when using this product.
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P264 - Wash face, hands and any exposed skin thoroughly after handling.
- P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
- P405 - Store locked up.
- P501 - Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Other information

A safety datasheet follows for all potentially hazardous components – all other components are non-hazardous.

#### TRANSPORT INFORMATION

**DOT** Excepted Quantity

**Proper shipping name** Chemical Kit

**Hazard class** 9

**UN/ID No** 3316

**Packing group** II

**IATA** Excepted Quantity

**UN/ID No** 3316

**Proper shipping name** Chemical Kit

**Hazard class** 9

**Packing group** II

**ADR** Excepted Quantity

**Proper shipping name** Chemical Kit

**Hazard class** 9

**UN/ID No** 3316

**Packing group** II



# Safety Data Sheet

## Section 1: Product and Company Identification

**Product Name: 4x Trypsin Concentrate**

**Part Number: J0023**

Kit Catalog Number: X1545K

Kit Product Name: BrdU Immunohistochemistry Kit

Recommended use: For research use only

Manufacturer:

Exalpha Biologicals, Inc  
2 Shaker Road, Unit B101  
Shirley, MA 01464  
(978) 425-1370 (U.S.A.)

Emergency Telephone Numbers:

Contact National Poison Information Center

## Section 2. Hazards Identification

### GHS-Classification

Skin sensitization	Category 1
Ozone	Not applicable

### GHS Label elements, including precautionary statements



**Signal Word:** Warning

#### Hazard statements

H317 - May cause an allergic skin reaction.

#### Precautionary Statements - EU (§28, 1272/2008)

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention.

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P272 - Contaminated work clothing should not be allowed out of the workplace.



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

P363 - Wash contaminated clothing before reuse.

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

**Other information:** No information available.

## Section 3. Composition/Information on Ingredients

### 3.1 Substances

Chemical Name	CAS-No	Weight %	Classification (Reg. 1272/2008)
Trypsin	9002-07-7	0.1-1	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334)
2-Chloroacetamide	79-07-2	0.1-1	Acute Tox. 3 (H301) Skin Sens. 1 (H317) Repr. 2 (H361f)

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

## Section 4. First Aid Measure

**General advice** If symptoms persist, call a physician.

**Eye contact** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

**Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. If symptoms persist, call a physician.

**Inhalation** Move to fresh air.

**Ingestion** Clean mouth with water. Drink plenty of water.

**Notes to physician** Treat symptomatically. May cause sensitization by inhalation and skin contact. May cause sensitization of susceptible persons.

## Section 5. Fire Fighting Measures

**Flammable properties:** Not flammable.

**Flash point:** not determined.

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

### Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Specific hazards arising from the chemical:** Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact.



**Protective equipment and precautions for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes.

## Section 6. Accidental Release Measures

**Personal precautions:** Use personal protective equipment. Avoid contact with the skin and the eyes

**Environmental precautions:** Try to prevent the material from entering drains or water courses.

**Methods for containment:** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water. Prevent product from entering drains.

## Section 7. Handling & Storage

**Advice on safe handling:** Ensure adequate ventilation. Wear personal protective equipment.

**Technical measures/Storage conditions:** Keep out of the reach of children. Keep container tightly closed. Keep containers tightly closed in a cool, well-ventilated place.

## Section 8. Exposure Controls and Personal Protection

**Exposure Guidelines:** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering measures:** Showers, Eyewash stations, Ventilation systems

**Personal protective equipment**

**Eye/face protection:** Tightly fitting safety goggles.

**Skin and body protection:** No special protective equipment required.

**Respiratory protection:** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures:** When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use.

## Section 9. Physical and Chemical Properties

**Appearance:** No information available.

**Odor Threshold:** No information available.

**pH:** No information available.

**Flash point:** No information available.

**Decomposition temperature:** No information available.

**Melting point/range:** No information available.

**Explosion limits:** No information available.

**Specific Gravity:** No data available

**Evaporation rate:** No information available.

**VOC Content (%):** Not applicable

**Odor:** No information available.

**Physical State at 20°C:** No information available.

**Autoignition temperature:** No information available.

**Boiling point/boiling range:** No information available.



**Flammability Limits in Air:** No information available.

**Solubility:** No information available.

**Vapor density:** No data available

**Vapor Pressure at 20°C (kPa):** No information available

**VOC Content (%):** Not applicable

## Section 10. Stability and reactivity

**Stability:** Stable under recommended storage conditions.

**Incompatible products:** None known based on information supplied.

**Conditions to avoid:** None known based on information supplied.

**Hazardous decomposition products:** None known based on information supplied.

**Hazardous polymerization:** Hazardous polymerization does not occur.

## Section 11. Toxicological Information

### Acute toxicity

**Product Information:** May cause sensitization of susceptible persons.

**Inhalation:** May cause sensitization by inhalation. Avoid breathing vapors or mists.

**Eye contact:** Avoid contact with eyes. Contact with eyes may cause irritation.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Trypsin	5g/kg (Rat)		
2-Chloroacetamide	138 mg/kg (Rat)		

**Chronic toxicity:** Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.

**Sensitization:** May cause sensitization by inhalation. As a precaution the product should be treated as a sensitizer.

**Target Organ Effects:** None known.

## Section 12. Ecological Information

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

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
2-Chloroacetamide	IC50 Desmodesmus subspicatus (Green algae): 10 mg/l (72 h)	LC50 Leuciscus idus (Golden orfe): 19.8 mg/l (96 h)	EC50 Activated sludge (Bacteria): 1,174 mg/l (3 h)	EC50 Daphnia magna (Water flea): 14 mg/l (48 h)

Chemical Name	log Pow
2-Chloroacetamide	-0.53





## Section 13. Disposal Considerations

**Waste disposal methods:** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements

**Contaminated packaging:** Do not re-use empty containers.

## Section 14. Transport Information

**DOT** Excepted Quantity  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

**IATA** Excepted Quantity  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

**ADR** Excepted Quantity  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

## Section 15. Regulatory Information

### U.S. Federal Regulations

**SARA 313:** Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### SARA 311/312 Hazard Categories

Acute Health Hazard: yes

Chronic Health Hazard: no

Fire Hazard: no

Sudden Release of Pressure Hazard: no

Reactive Hazard: no

**Clean Water Act:** This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA:** This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR



302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**U.S. State Regulations**

**California Proposition 65:** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

**International Regulations**

**WHMIS Note:** 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**

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

H317 - May cause an allergic skin reaction.

H361f - Suspected of damaging fertility.

H301 - Toxic if swallowed.

H335 - May cause respiratory irritation.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Hazard statements**

H317 - May cause an allergic skin reaction.

**Version 1**

**Revision Date** 03 Oct 2019

**Revision Note** No information available.

**Disclaimer:**

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Prepared by: Exalpha Biologicals, Inc  
Phone Number: 978-425-1370 (U.S.A.)



# Safety Data Sheet

## Section 1: Product and Company Identification

**Product Name:** Trypsin Dilution Buffer

**Part Number:** J0020

Kit Catalog Number: X1545K

Kit Product Name: BrdU Immunohistochemistry Kit

Recommended use: For research use only

**Manufacturer:**

Exalpha Biologicals, Inc  
2 Shaker Road, Unit B101  
Shirley, MA 01464  
(978) 425-1370 (U.S.A.)

**Emergency Telephone Numbers:**

Contact National Poison Information Center

## Section 2. Hazards Identification

### GHS-Classification

Skin sensitization	Category 1
Ozone	Not applicable

GHS Label elements, including precautionary statements



**Signal Word:** Warning

### Hazard statements

H317 - May cause an allergic skin reaction.

### Precautionary Statements - EU (§28, 1272/2008)

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention.

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P272 - Contaminated work clothing should not be allowed out of the workplace.

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

P363 - Wash contaminated clothing before reuse.

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



**Other information:** No information available.

## Section 3. Composition/Information on Ingredients

### 3.1 Substances

Chemical Name	CAS-No	Weight %	Classification (Reg. 1272/2008)
2-Chloroacetamide	79-07-2	0.1-1	Acute Tox. 3 (H301) Skin Sens. 1 (H317) Repr. 2 (H361f)

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

## Section 4. First Aid Measure

**General advice:** If symptoms persist, call a physician.

**Eye contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

**Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. If symptoms persist, call a physician.

**Inhalation:** Move to fresh air.

**Ingestion:** Clean mouth with water. Drink plenty of water.

**Notes to physician:** May cause sensitization of susceptible persons. Treat symptomatically.

## Section 5. Fire Fighting Measures

**Flammable properties:** Not flammable.

**Flash point:** not determined.

**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Explosion Data

**Sensitivity to Mechanical Impact:** None.

**Sensitivity to Static Discharge:** None.

**Specific hazards arising from the chemical:** Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact.

**Protective equipment and precautions for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes.

## Section 6. Accidental Release Measures

**Personal precautions:** Use personal protective equipment. Avoid contact with the skin and the eyes.

**Environmental precautions:** Try to prevent the material from entering drains or water courses.

**Methods for containment:** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water. Prevent product from entering drains.



## Section 7. Handling & Storage

**Advice on safe handling:** Wear personal protective equipment. Ensure adequate ventilation.

**Technical measures/Storage conditions:** Keep out of the reach of children. Keep container tightly closed. Keep containers tightly closed in a cool, well-ventilated place.

## Section 8. Exposure Controls and Personal Protection

**Exposure Guidelines:** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering measures:** Showers, Eyewash stations, Ventilation systems.

### Personal protective equipment

**Eye/face protection:** Tightly fitting safety goggles.

**Skin and body protection:** No special protective equipment required.

**Respiratory protection:** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures:** When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use.

## Section 9. Physical and Chemical Properties

**Appearance:** No information available.

**Odor Threshold:** No information available.

**pH:** No information available.

**Flash point:** No information available.

**Decomposition temperature:** No information available.

**Melting point/range:** No information available.

**Explosion limits:** No information available.

**Specific Gravity:** No data available

**Evaporation rate:** No information available.

**Odor:** No information available.

**Physical State at 20°C:** No information available.

**Autoignition temperature:** No information available.

**Boiling point/boiling range:** No information available.

**Flammability Limits in Air:** No information available.

**Solubility:** No information available.

**Vapor density:** No data available

**Vapor Pressure at 20°C (kPa):** No information available

**VOC Content (%):** Not applicable

## Section 10. Stability and reactivity

**Stability:** Stable under recommended storage conditions.

**Incompatible products:** None known based on information supplied.

**Conditions to avoid:** None known based on information supplied.

**Hazardous decomposition products:** None known based on information supplied.

**Hazardous polymerization:** Hazardous polymerization does not occur.



## Section 11. Toxicological Information

### Acute toxicity

**Product Information:** May cause sensitization of susceptible persons.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Chloroacetamide	138 mg/kg ( Rat )		

**Chronic toxicity:** Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.

**Sensitization:** As a precaution the product should be treated as a sensitizer.

**Target Organ Effects:** None known.

## Section 12. Ecological Information

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

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
2-Chloroacetamide	IC50 Desmodesmus subspicatus (Green algae): 10 mg/l (72 h)	LC50 Leuciscus idus (Golden orfe): 19.8 mg/l (96 h)	EC50 Activated sludge (Bacteria): 1,174 mg/l (3 h)	EC50 Daphnia magna (Water flea): 14 mg/l (48 h)

Chemical Name	log Pow
2-Chloroacetamide	-0.53

## Section 13. Disposal Considerations

**Waste disposal methods:** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging:** Do not re-use empty containers.

## Section 14. Transport Information

<b>DOT</b>	Excepted Quantity
<b>Proper shipping name</b>	Chemical kit
<b>Hazard class</b>	9
<b>UN/ID No</b>	3316
<b>Packing group</b>	II



**IATA** Excepted Quantity  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

**ADR** Excepted Quantity  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

## Section 15. Regulatory Information

### U.S. Federal Regulations

**SARA 313:** Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### SARA 311/312 Hazard Categories

Acute Health Hazard: yes

Chronic Health Hazard: no

Fire Hazard: no

Sudden Release of Pressure Hazard: no

Reactive Hazard: no

**Clean Water Act:** This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA:** This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### U.S. State Regulations

**California Proposition 65:** This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

### International Regulations

**WHMIS Note:** 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

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

H317 - May cause an allergic skin reaction.

H361f - Suspected of damaging fertility.

H301 - Toxic if swallowed.

### Hazard statements

H317 - May cause an allergic skin reaction.



**Version 1**

**Revision Date** 03 Oct 2019

**Revision Note** No information available.

**Disclaimer:**

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Exalpha Biologicals, Inc provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Exalpha Biologicals, Inc. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, Exalpha Biologicals, Inc. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

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Prepared by: Exalpha Biologicals, Inc  
Phone Number: 978-425-1370 (U.S.A.)





# Safety Data Sheet

## Section 1: Product and Company Identification

**Product Name: Denaturing Solution**

**Part Number: J0025**

Kit Catalog Number: X1545K

Kit Product Name: BrdU Immunohistochemistry Kit

Recommended use: For research use only

**Manufacturer:**

Exalpha Biologicals, Inc  
2 Shaker Road, Unit B101  
Shirley, MA 01464  
(978) 425-1370 (U.S.A.)

**Emergency Telephone Numbers:**

Contact National Poison Information Center

## Section 2. Hazards Identification

### GHS-Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Specific target organ systemic toxicity (single exposure)	Category 3
Ozone	Not applicable

GHS Label elements, including precautionary statements



**Signal Word:** Warning

### Hazard statements

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

**Precautionary Statements** - EU (§28, 1272/2008)

P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P312 - Call a POISON CENTER or doctor/ physician if you feel unwell.



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

P264 - Wash face, hands and any exposed skin thoroughly after handling.

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

P362 - Take off contaminated clothing and wash before reuse.

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P271 - Use only outdoors or in a well-ventilated area.

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

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

**Other information:** No information available.

## Section 3. Composition/Information on Ingredients

### 3.1 Substances

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

## Section 4. First Aid Measure

**General advice:** If symptoms persist, call a physician.

**Eye contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If symptoms persist, call a physician.

**Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

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

**Ingestion:** Rinse mouth. If symptoms persist, call a physician.

**Notes to physician:** Treat symptomatically.

## Section 5. Fire Fighting Measures

**Flammable properties:** Not flammable.

**Flash point:** not determined.

**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Explosion Data

**Sensitivity to Mechanical Impact:** None.

**Sensitivity to Static Discharge:** None.

**Protective equipment and precautions for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes.

## Section 6. Accidental Release Measures

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

**Environmental precautions:** Try to prevent the material from entering drains or water courses.

**Methods for containment:** Prevent further leakage or spillage if safe to do so.



**Methods for cleaning up:** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water. Prevent product from entering drains. Dam up.

## Section 7. Handling & Storage

**Advice on safe handling:** Ensure adequate ventilation. Wear personal protective equipment. Use only in area provided with appropriate exhaust ventilation. Do not breathe vapors or spray mist.

**Technical measures/Storage conditions:** Keep container tightly closed. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

## Section 8. Exposure Controls and Personal Protection

**Exposure Guidelines:** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

NIOSH IDLH: Immediately Dangerous to Life or Health

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrochloric acid 7647-01-0	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m <sup>3</sup> Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>

**Other Exposure Guidelines:** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Engineering measures:** Showers, Eyewash stations, Ventilation systems.

### Personal protective equipment

**Eye/face protection:** Tightly fitting safety goggles.

**Skin and body protection:** No special protective equipment required.

**Respiratory protection:** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures:** When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.

## Section 9. Physical and Chemical Properties

**Appearance:** No information available.

**Odor Threshold:** No information available.

**pH:** No information available.

**Flash point:** No information available.

**Decomposition temperature:** No information available.

**Melting point/range:** No information available.

**Explosion limits:** No information available.

**Specific Gravity:** No data available

**Evaporation rate:** No information available.



**Odor:** No information available.

**Physical State at 20°C:** No information available.

**Autoignition temperature:** No information available.

**Boiling point/boiling range:** No information available.

**Flammability Limits in Air:** No information available.

**Solubility:** No information available.

**Vapor density:** No data available

**Vapor Pressure at 20°C (kPa):** No information available

**VOC Content (%):** Not applicable

## Section 10. Stability and reactivity

**Stability:** Stable under recommended storage conditions.

**Incompatible products:** None known based on information supplied.

**Conditions to avoid:** None known based on information supplied.

**Hazardous decomposition products:** None known based on information supplied.

**Hazardous polymerization:** Hazardous polymerization does not occur.

## Section 11. Toxicological Information

### Acute toxicity

**Product Information:** Irritating to skin, eyes and / or respiratory tract.

**Inhalation:** Irritating to respiratory system. May cause irritation of respiratory tract.

**Eye contact:** Irritating to eyes. May cause irritation.

**Skin contact:** May cause irritation.

**Ingestion:** Ingestion may cause irritation to mucous membranes

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrochloric acid	700 mg/kg ( Rat )	5010 mg/kg ( Rabbit )	3124 ppm ( Rat ) 1 h

**Chronic toxicity:** Avoid repeated exposure

**Carcinogenicity:** This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

**IARC: (International Agency for Research on Cancer)**

Group 3 - Not Classifiable as to Carcinogenicity in Humans.

**Target Organ Effects:** Eyes. Respiratory system. Skin.

## Section 12. Ecological Information

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

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Hydrochloric acid		282: 96 h Gambusia affinis mg/L LC50 static		



### Section 13. Disposal Considerations

**Waste disposal methods:** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging:** Do not re-use empty containers.

### Section 14. Transport Information

**DOT** Excepted Quantity  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

**IATA** Excepted Quantity  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

**ADR** Excepted Quantity  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

### Section 15. Regulatory Information

#### U.S. Federal Regulations

**SARA 313:** Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Hydrochloric acid	7647-01-0	18	1.0

#### SARA 311/312 Hazard Categories

- Acute Health Hazard: yes
- Chronic Health Hazard: no
- Fire Hazard: no
- Sudden Release of Pressure Hazard: no
- Reactive Hazard: no

**Clean Water Act:** This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).



**CERCLA:** This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**U.S. State Regulations**

**California Proposition 65:** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Hydrochloric acid	X	X	X	X	X

**International Regulations**

**WHMIS Note:** 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**

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

H335 - May cause respiratory irritation

H314 - Causes severe skin burns and eye damage

**Hazard statements**

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

**Version 1**

**Revision Date** 03 Oct 2019

**Revision Note** No information available.

**Disclaimer:**

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Exalpha Biologicals, Inc provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Exalpha Biologicals, Inc. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, Exalpha Biologicals, Inc. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

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Prepared by: Exalpa Biologicals, Inc  
Phone Number: 978-425-1370 (U.S.A.)



# Safety Data Sheet

## Section 1: Product and Company Identification

**Product Name: Block Buffer**

**Part Number: J0024**

Kit Catalog Number: X1545K

Kit Product Name: BrdU Immunohistochemistry Kit

Recommended use: For research use only

Manufacturer:

Exalpha Biologicals, Inc  
2 Shaker Road, Unit B101  
Shirley, MA 01464  
(978) 425-1370 (U.S.A.)

Emergency Telephone Numbers:

Contact National Poison Information Center

## Section 2. Hazards Identification

### GHS-Classification

Skin sensitization	Category 1
Ozone	Not applicable

GHS Label elements, including precautionary statements



**Signal Word:** Warning

### Hazard statements

H317 - May cause an allergic skin reaction.

### Precautionary Statements - EU (§28, 1272/2008)

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention.

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P272 - Contaminated work clothing should not be allowed out of the workplace.

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





P363 - Wash contaminated clothing before reuse.

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

**Other information:** No information available.

## Section 3. Composition/Information on Ingredients

### 3.1 Substances

Chemical Name	CAS-No	Weight %	Classification (Reg. 1272/2008)
2-Chloroacetamide	79-07-2	0.1-1	Acute Tox. 3 (H301) Skin Sens. 1 (H317) Repr. 2 (H361f)

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

## Section 4. First Aid Measure

**General advice:** If symptoms persist, call a physician.

**Eye contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

**Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. If symptoms persist, call a physician.

**Inhalation:** Move to fresh air.

**Ingestion:** Clean mouth with water. Drink plenty of water.

**Notes to physician:** May cause sensitization of susceptible persons. Treat symptomatically.

## Section 5. Fire Fighting Measures

**Flammable properties:** Not flammable.

**Flash point:** not determined.

**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Explosion Data

**Sensitivity to Mechanical Impact:** None.

**Sensitivity to Static Discharge:** None.

**Specific hazards arising from the chemical:** Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact.

**Protective equipment and precautions for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes.

## Section 6. Accidental Release Measures

**Personal precautions:** Use personal protective equipment. Avoid contact with the skin and the eyes.

**Environmental precautions:** Try to prevent the material from entering drains or water courses.

**Methods for containment:** Prevent further leakage or spillage if safe to do so.



**Methods for cleaning up:** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water. Prevent product from entering drains.

## Section 7. Handling & Storage

**Advice on safe handling:** Wear personal protective equipment. Ensure adequate ventilation.

**Technical measures/Storage conditions:** Keep out of the reach of children. Keep container tightly closed. Keep containers tightly closed in a cool, well-ventilated place.

## Section 8. Exposure Controls and Personal Protection

**Exposure Guidelines:** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering measures:** Showers, Eyewash stations, Ventilation systems.

### Personal protective equipment

**Eye/face protection:** Tightly fitting safety goggles.

**Skin and body protection:** No special protective equipment required.

**Respiratory protection:** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures:** When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use.

## Section 9. Physical and Chemical Properties

**Appearance:** No information available.

**Odor Threshold:** No information available.

**pH:** No information available.

**Flash point:** No information available.

**Decomposition temperature:** No information available.

**Melting point/range:** No information available.

**Explosion limits:** No information available.

**Specific Gravity:** No data available

**Evaporation rate:** No information available.

**Odor:** No information available.

**Physical State at 20°C:** No information available.

**Autoignition temperature:** No information available.

**Boiling point/boiling range:** No information available.

**Flammability Limits in Air:** No information available.

**Solubility:** No information available.

**Vapor density:** No data available

**Vapor Pressure at 20°C (kPa):** No information available

**VOC Content (%):** Not applicable



## Section 10. Stability and reactivity

**Stability:** Stable under recommended storage conditions.

**Incompatible products:** None known based on information supplied.

**Conditions to avoid:** None known based on information supplied.

**Hazardous decomposition products:** None known based on information supplied.

**Hazardous polymerization:** Hazardous polymerization does not occur.

## Section 11. Toxicological Information

### Acute toxicity

**Product Information:** May cause sensitization of susceptible persons.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Chloroacetamide	138 mg/kg ( Rat )		

**Chronic toxicity:** Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.

**Sensitization:** As a precaution the product should be treated as a sensitizer.

**Target Organ Effects:** None known.

## Section 12. Ecological Information

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

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
2-Chloroacetamide	IC50 Desmodesmus subspicatus (Green algae): 10 mg/l (72 h)	LC50 Leuciscus idus (Golden orfe): 19.8 mg/l (96 h)	EC50 Activated sludge (Bacteria): 1,174 mg/l (3 h)	EC50 Daphnia magna (Water flea): 14 mg/l (48 h)

Chemical Name	log Pow
2-Chloroacetamide	-0.53

## Section 13. Disposal Considerations

**Waste disposal methods:** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging:** Do not re-use empty containers



## Section 14. Transport Information

**DOT** Excepted Quantity  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

**IATA** Excepted Quantity  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

**ADR** Excepted Quantity  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

## Section 15. Regulatory Information

### U.S. Federal Regulations

**SARA 313:** Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### SARA 311/312 Hazard Categories

Acute Health Hazard: yes

Chronic Health Hazard: no

Fire Hazard: no

Sudden Release of Pressure Hazard: no

Reactive Hazard: no

**Clean Water Act:** This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA:** This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### U.S. State Regulations

**California Proposition 65:** This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

### International Regulations

**WHMIS Note:** 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**

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

H317 - May cause an allergic skin reaction

H361f - Suspected of damaging fertility

H301 - Toxic if swallowed

**Hazard statements**

H317 - May cause an allergic skin reaction

**Version 1**

**Revision Date** 03 Oct 2019

**Revision Note** No information available.

**Disclaimer:**

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Exalpha Biologicals, Inc provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Exalpha Biologicals, Inc. **MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, Exalpha Biologicals, Inc. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.**

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Prepared by: Exalpha Biologicals, Inc  
Phone Number: 978-425-1370 (U.S.A.)



# Safety Data Sheet

## Section 1: Product and Company Identification

**Product Name: Krystalon Mounting Media**

**Part Number: J0029**

Kit Catalog Number: X1545K

Kit Product Name: BrdU Immunohistochemistry Kit

Recommended use: For research use only

Manufacturer:

Exalpha Biologicals, Inc  
2 Shaker Road, Unit B101  
Shirley, MA 01464  
(978) 425-1370 (U.S.A.)

Emergency Telephone Numbers:

Contact National Poison Information Center

## Section 2. Hazards Identification

### GHS-Classification

Aspiration toxicity	Category 1
Acute oral toxicity	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Reproductive toxicity	Category 2
Specific target organ systemic toxicity (single exposure)	Category 3
Specific target organ systemic toxicity (repeated exposure)	Category 2
Ozone	Not applicable



GHS Label elements, including precautionary statements



**Signal Word:** Danger

**Hazard statements**

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H361 - Suspected of damaging fertility or the unborn child.

H335 - May cause respiratory irritation.

H373 - May cause damage to organs through prolonged or repeated exposure.

H304 - May be fatal if swallowed and enters airways.

**Precautionary Statements** - EU (§28, 1272/2008)

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

P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P312 - Call a POISON CENTER or doctor/ physician if you feel unwell.

P331 - Do NOT induce vomiting.

P314 - Get medical advice/ attention if you feel unwell.

P362 - Take off contaminated clothing and wash before reuse.

P264 - Wash face, hands and any exposed skin thoroughly after handling.

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

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

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

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P271 - Use only outdoors or in a well-ventilated area.

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P201 - Obtain special instructions before use.

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

P281 - Use personal protective equipment as required.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

**Other information:** No information available.

## Section 3. Composition/Information on Ingredients

### 3.1 Substances

Chemical name	CAS-No	Weight %	Classification (Reg. 1272/2008)
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Toluene	108-88-3	30-60	STOT SE 3 (H336) STOT RE 2 (H373) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Repr. 2 (H361d) Flam Liq. 1 (H224)
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For the full text of the H-Statements mentioned in this Section, see Section 16.

## Section 4. First Aid Measure

**General advice:** If symptoms persist, call a physician.

**Eye contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If symptoms persist, call a physician.

**Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

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

**Ingestion:** Rinse mouth. If symptoms persist, call a physician.

**Notes to physician:** Treat symptomatically.

## Section 5. Fire Fighting Measures

**Flammable properties:** Not flammable.

**Flash point:** not determined.

**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Explosion Data

**Sensitivity to Mechanical Impact:** None.

**Sensitivity to Static Discharge:** None.

**Protective equipment and precautions for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes.

## Section 6. Accidental Release Measures

**Personal precautions:** Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Environmental precautions:** Try to prevent the material from entering drains or water courses.

**Methods for containment:** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up.

## Section 7. Handling & Storage

**Advice on safe handling:** Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Remove and wash contaminated clothing before re-use. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using this product. Use only in area provided with appropriate exhaust ventilation.





**Technical measures/Storage conditions:** Keep container tightly closed. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

## Section 8. Exposure Controls and Personal Protection

**Exposure Guidelines:** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

NIOSH IDLH: Immediately Dangerous to Life or Health

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm (vacated) TWA: 100 ppm (vacated) TWA: 375 mg/m3 (vacated) STEL: 150 ppm (vacated) STEL: 560 mg/m3 Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m3 STEL: 150 ppm STEL: 560 mg/m3

**Other Exposure Guidelines:** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Engineering measures:** Showers, Eyewash stations, Ventilation systems

**Personal protective equipment**

**Eye/face protection:** Tightly fitting safety goggles. Face-shield.

**Skin and body protection:** No special protective equipment required.

**Respiratory protection:** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures:** When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

## Section 9. Physical and Chemical Properties

**Appearance:** No information available.

**Odor Threshold:** No information available.

**pH:** No information available.

**Flash point:** No information available.

**Decomposition temperature:** No information available.

**Melting point/range:** No information available.

**Explosion limits:** No information available.

**Specific Gravity:** No data available

**Evaporation rate:** No information available.

**Odor:** No information available.

**Physical State at 20°C:** No information available.

**Autoignition temperature:** No information available.

**Boiling point/boiling range:** No information available.

**Flammability Limits in Air:** No information available.

**Solubility:** No information available.

**Vapor density:** No data available

**Vapor Pressure at 20°C (kPa):** No information available



VOC Content (%): 50

## Section 10. Stability and reactivity

**Stability:** Stable under recommended storage conditions.

**Incompatible products:** None known based on information supplied.

**Conditions to avoid:** None known based on information supplied.

**Hazardous decomposition products:** None known based on information supplied.

**Hazardous polymerization:** Hazardous polymerization does not occur.

## Section 11. Toxicological Information

### Acute toxicity

**Product Information** Harmful if swallowed Irritating to skin, eyes and / or respiratory tract.

**Inhalation:** May cause irritation of respiratory tract. Avoid breathing vapors or mists.

**Eye contact:** Irritating to eyes. May cause irritation. Avoid contact with eyes.

**Skin contact:** May cause irritation.

**Ingestion:** Ingestion may cause irritation to mucous membranes. Harmful if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Toluene	636 mg/kg ( Rat )	8390 mg/kg ( Rabbit ) 12124 mg/kg ( Rat )	12.5 mg/L ( Rat ) 4 h 26700 ppm ( Rat ) 1 h

**Chronic toxicity:** Avoid repeated exposure. May cause adverse liver effects.

**Carcinogenicity:** This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

Chemical Name	ACGIH	IARC	NTP	OSHA
Toluene		Group 3		

### IARC: (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans.

**Reproductive toxicity:** Product is or contains a chemical which is a known or suspected reproductive hazard.

**Developmental Toxicity:** Contains ingredients that have suspected developmental hazards. Possible risk of harm to the unborn child. May cause birth defects.

**Target Organ Effects:** Central nervous system (CNS). Eyes. Kidney. Liver. Respiratory system. Skin.

## Section 12. Ecological Information

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

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Toluene	433: 96 h Pseudokirchneriella subcapitata mg/L EC50	15.22-19.05: 96 h Pimephales promelas mg/L LC50 flow-through 12.6: 96 h		5.46 - 9.83: 48 h Daphnia magna mg/L EC50



	12.5: 72 h Pseudokirchneriella subcapitata mg/L EC50 static	Pimephales promelas mg/L LC50 static 5.89-7.81: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 14.1- 17.16: 96 h Oncorhynchus mykiss mg/L LC50 static 5.8: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 11.0- 15.0: 96 h Lepomis macrochirus mg/L LC50 static 54: 96 h Oryzias latipes mg/L LC50 static 28.2: 96 h Poecilia reticulata mg/L LC50 semi-static 50.87-70.34: 96 h Poecilia reticulata mg/L LC50 static		Static 11.5: 48 h Daphnia magna mg/L EC50
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<b>Chemical Name</b>	<b>Low Pow</b>
Toluene	2.65

### Section 13. Disposal Considerations

**Waste disposal methods:** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging:** Do not re-use empty containers.

**US EPA Waste Number:** U220

Chemical Name	RCRA	RCRA- Basis for Listing	RCRA- D Series Wastes	RCRA- U Series Wastes
Toluene - 108-88-3	U220	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151		U220
Chemical Name	RCRA- Halogenated Organic Compounds	RCRA- P Series Wastes	RCRA- F Series Wastes	RCRA- K Series Wastes



<p>Toluene - 108-88-3</p>			<p>Toxic waste waste number F025 Waste description: Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.</p>	
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This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Toluene	Toxic Ignitable



## Section 14. Transport Information

**DOT** Not dangerous goods  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

**IATA** Not dangerous goods  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

**ADR** Not dangerous goods  
**Proper shipping name** Chemical kit  
**Hazard class** 9  
**UN/ID No** 3316  
**Packing group** II

## Section 15. Regulatory Information

### U.S. Federal Regulations

**SARA 313:** Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Toluene	108-88-3	50	1.0

### SARA 311/312 Hazard Categories

Acute Health Hazard: yes  
 Chronic Health Hazard: yes  
 Fire Hazard: no  
 Sudden Release of Pressure Hazard: no  
 Reactive Hazard: no

**Clean Water Act:** This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Toluene	1000 lb	X	X	X

**CERCLA:** This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ



Toluene	1000 lb 1 lb		RQ 1000 lb final RQ RQ 454 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ
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**U.S. State Regulations**

**California Proposition 65:** This product contains the following Proposition 65 chemicals:

Chemical Name	CAS No	California Prop. 65
Toluene	108-88-3	Developmental Female Reproductive

**U.S. State Right-to-Know Regulations**

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

**International Regulations**

Chemical Name	Carcinogen Status	Exposure Limits
Toluene		Mexico: TWA 50 ppm Mexico: TWA 188 mg/m3

**WHMIS Note:** 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**

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

H336 - May cause drowsiness or dizziness.

H373 - May cause damage to organs (a,b,c) through prolonged or repeated exposure if inhaled.

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H361d - Suspected of damaging the unborn child.

H224 - Extremely flammable liquid and vapor.

**Hazard statements**

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H361 - Suspected of damaging fertility or the unborn child.

H335 - May cause respiratory irritation.

H373 - May cause damage to organs through prolonged or repeated exposure.

H304 - May be fatal if swallowed and enters airways.



**Version 1**

**Revision Date** 03 Oct 2019

**Revision Note** No information available.

**Disclaimer:**

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Exalpha Biologicals, Inc provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Exalpha Biologicals, Inc. **MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, Exalpha Biologicals, Inc. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.**

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Prepared by: Exalpha Biologicals, Inc  
Phone Number: 978-425-1370 (U.S.A.)



# Safety Data Sheet

## Section 1: Product and Company Identification

**Product Name: DAB Concentrate**

**Part Number: J0027**

Kit Catalog Number: X1545K

Kit Product Name: BrdU Immunohistochemistry Kit

Recommended use: For research use only

Manufacturer:

Exalpha Biologicals, Inc  
2 Shaker Road, Unit B101  
Shirley, MA 01464  
(978) 425-1370 (U.S.A.)

Emergency Telephone Numbers:

Contact National Poison Information Center

## Section 2. Hazards Identification

**GHS-Classification**

Ozone	Not applicable
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**GHS Label elements, including precautionary statements:** Not dangerous.

**Other information:** No information available.

## Section 3. Composition/Information on Ingredients

3.1 Substances

Chemical name	CAS-No	Weight %	Classification (Reg. 1272/2008)
DAB tetrahydrochloride	868272-85-9	3-7	Eye Irrit. 2 (H319) STOT SE 3 (H335) Skin Irrit. 2 (H315)

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

## Section 4. First Aid Measure

**Eye contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.





**Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**Inhalation:** Move to fresh air.

**Ingestion:** Clean mouth with water. Drink plenty of water.

**Notes to physician:** Treat symptomatically.

## Section 5. Fire Fighting Measures

**Flammable properties:** Not flammable.

**Flash point:** not determined.

**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Explosion Data

**Sensitivity to Mechanical Impact:** None.

**Sensitivity to Static Discharge:** None.

**Protective equipment and precautions for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes.

## Section 6. Accidental Release Measures

**Personal precautions:** Ensure adequate ventilation.

**Environmental precautions:** Try to prevent the material from entering drains or water courses.

**Methods for containment:** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** Pick up and transfer to properly labeled containers.

## Section 7. Handling & Storage

**Advice on safe handling:** Handle in accordance with good industrial hygiene and safety practice.

**Technical measures/Storage conditions:** Keep containers tightly closed in a cool, well-ventilated place.

## Section 8. Exposure Controls and Personal Protection

**Exposure Guidelines:** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering measures:** Showers, Eyewash stations, Ventilation systems

### Personal protective equipment

**Eye/face protection:** No special protective equipment required.

**Skin and body protection:** No special protective equipment required.

**Respiratory protection:** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

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

## Section 9. Physical and Chemical Properties



**Appearance:** No information available.  
**Odor Threshold:** No information available.  
**pH:** No information available.  
**Flash point:** No information available.  
**Decomposition temperature:** No information available.  
**Melting point/range:** No information available.  
**Explosion limits:** No information available.  
**Specific Gravity:** No data available  
**Evaporation rate:** No information available.  
**Odor:** No information available.  
**Physical State at 20°C:** No information available.  
**Autoignition temperature:** No information available.  
**Boiling point/boiling range:** No information available.  
**Flammability Limits in Air:** No information available.  
**Solubility:** No information available.  
**Vapor density:** No data available  
**Vapor Pressure at 20°C (kPa):** No information available  
**VOC Content (%):** Not applicable

## Section 10. Stability and reactivity

**Stability:** Stable under recommended storage conditions.  
**Incompatible products:** None known based on information supplied.  
**Conditions to avoid:** None known based on information supplied.  
**Hazardous decomposition products:** None known based on information supplied.  
**Hazardous polymerization:** Hazardous polymerization does not occur.

## Section 11. Toxicological Information

### Acute toxicity

**Product Information:** Product does not present an acute toxicity hazard based on known or supplied information.

### Chronic toxicity

**Target Organ Effects:** None known

## Section 12. Ecological Information

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

## Section 13. Disposal Considerations

**Waste disposal methods:** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging:** Do not re-use empty containers.



## Section 14. Transport Information

<b>DOT</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods
<b>ADR</b>	Not dangerous goods

## Section 15. Regulatory Information

### U.S. Federal Regulations

**SARA 313:** Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### SARA 311/312 Hazard Categories

Acute Health Hazard: no

Chronic Health Hazard: no

Fire Hazard: no

Sudden Release of Pressure Hazard: no

Reactive Hazard: no

**Clean Water Act:** This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA:** This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### U.S. State Regulations

**California Proposition 65:** This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

### International Regulations

**WHMIS Note:** 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

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

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H315 - Causes skin irritation

### Version 1

**Revision Date** 03 Oct 2019

**Revision Note** No information available.



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