

DAB Chromogen Component of ihcDirect® Kits, DAB Kits and, Q-STAIN® X (QSXTM) Ancillary Reagents SAFETY DATA SHEET

Section 1: Identification of the Substance/Mixture and Company

Product Names: ihcDirect Kits, DAB Kits and Q-STAIN X (QSX) Reagents

Catalog Numbers: ihcDirect Kits: K4####-XXX, K3####-XXX and K50002-XXX where XXX is size and #### is specific to each kit.

QSX-DAB: QC30018-002

Component Part Numbers: ihcDirect and QSX C30018-XXXML where XXX is size.

Product Description: DAB 1:1 (chromogen) reagent and DAB 1:1 (chromogen) reagent: (3,3'-diaminobenzidine) for use with ihcDirect kits.
QSX-DAB: (3,3'-diaminobenzidine) for use with QSX antibody reagents and ancillaries.

Relevant identified uses of substance or mixture and uses advised against:

Use of substance/mixture: For *in vitro* diagnostic and research laboratory settings only

Manufacturer/Supplier:

Novodiox Inc.	Toll Free:	(888) 432-2716
3517 Breakwater Ave.	Direct:	(510) 342-3043
Hayward, CA 94545 USA	Fax:	(510) 254-6704
	General Information:	www.novodiox.com
		novoinfo@novodiox.com
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Section 2: Hazards Identification

GHS Classification:

GHS-US Signal word: **Danger**

GHS-US Classification:

Acute Toxicity if swallowed, (Oral) Category 4	H302
Causes serious eye irritation, Category 2A	H319
Germ cell mutagenicity/suspected of causing genetic defects, Category 2	H341
May cause cancer, Category 1B	H350

Precautionary Statements:

Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when handling this product. Wash skin thoroughly after contact. **IF SWALLOWED:** Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.

ihcDirect, DAB Kits and Q-STAIN X (QSX) Reagents
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GHS Label:

GHS-US Labelling



Unknown Acute Toxicity (GHS-US): No data available

Section 3: Composition/Information on Ingredients

ihc/QSX DAB: Reagent is dissolved into DAB Diluent.

3.1 Component:	CAS#:	EC#:	% by Weight:
3,3'-diaminobenzidine	91-95-2	231-018-9	< 10%

Section 4: First Aid Measures

Description of first aid measures:

General Advice: Consult a physician. Show this SDS to the doctor in attendance.

In case of/or following:	
Inhalation:	Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention.
Skin contact:	Wash thoroughly with plenty of water/shower and soap. Obtain medical attention.
Eye contact:	Rinse thoroughly with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.
Ingestion:	If conscious, rinse mouth. Do NOT induce vomiting. Obtain medical attention.

Section 5: Firefighting Measures

Suitable extinguishing media:

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment	Use respirator. Toxic gases can be derived.

Advice for firefighters:

Special protective equipment	Use respirator. Toxic gases can be derived.
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Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Wear protective clothing to prevent contact with eyes and skin. Ensure adequate ventilation. Collect on absorbent material and dispose of in according to federal, state and local environmental regulations.

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Environmental precautions and clean up:

Collect on absorbent material and dispose of in accordance with federal, state and local environmental control regulations. Do not allow product to enter drains. Notify authorities if liquid enters sewers or public waters.

Section 7: Handling and Storage

Precautions for safe handling:

Use only with adequate ventilation. Wear eye protection and disposable nitrile gloves.. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not handle until all safety precautions have been read and understood.

Conditions for safe storage:

Store in a refrigerator at 2-8°C.

Section 8: Exposure Controls/Personal Protection

Exposure Limits: Contains no substances with occupational exposure limit values.

Controls:

Engineering controls:	Use enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits.
Personal protection:	
Hand protection	Disposable nitrile gloves
Eye protection	Chemical goggles or face shield.
Skin protection	Wear suitable protective clothing, e.g. lab coat.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties:

Physical state:	Liquid	Flammability:	No data available
Color:	Light pink-to-brown	Vapor pressure:	No data available
Odor:	None	Relative vapor density at 20°C:	No data available
pH:	No data available	Relative density:	No data available
Odor threshold:	No data available	Solubility:	Not applicable
Boiling point:	No data available	Viscosity, kinematic:	No data available
Melting point:	No data available	Explosive properties:	No data available
Flash point:	No data available	Oxidizing properties:	No data available

Section 10: Stability and Reactivity

Chemical stability.	Stable under recommended storage conditions.
Conditions to avoid.	Avoid pH extremes.
Materials to avoid.	Strong oxidizers.
Hazardous reactions / decomposition products.	Carbon monoxide, carbon dioxide, nitrogen oxides.

Section 11: Toxicological Information

Information on toxicological effects

Acute Toxicity:	No data available.
Serious eye damage / eye irritation:	No data available.
Germ cell mutagenicity:	No data available.
Carcinogenicity:	No data available.
Reproductivity Toxicity:	No data available. May cause congenital malformation in the fetus.
Chronic effects:	Not determined.
RTECS#:	DV8753000
Toxicology data:	ipr-mus LD50: 330 mg/kg. Only selected RTECS data is shown.

Section 12: Ecological Information

No data available

Section 13: Disposal Considerations

Observe all federal, state and local environmental disposal regulations.

Section 14: Transport Information

In accordance with DOT

DOT (US):	Not a dangerous good.
RID/ADR:	Not regulated.
IMDG:	Not a dangerous good.
IATA:	Not a dangerous good.

Section 15: Regulatory information

Regulations SARA:

DAB Reagent, w/w:	CAS: 91-95-2
SARA Section 302:	No chemicals in this material are subject to the reporting requirements.
SARA Section 311/312 Hazards:	Hazards. No SARA hazards.
SARA Section 313:	No chemicals in this material with known CAS# are subject to the reporting requirements.

California Prop 65 components:

This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

Section 16: Other information

The information contained in this Safety Data Sheet is believed to be accurate but it is the responsibility of users to determine the applicability of this information to the formulation of necessary safety precautions. Novodiox, Inc. shall not be held responsible for any damage resulting from the use of the above information contained within this document.

Safety Data Sheet (SDS) Access:

To obtain a translation or the latest electronic version of a SDS document, visit our website at <https://www.novodiox.com/literature/safety-data-sheets/>. Printed copies of a SDS document may be obtained by contacting Novodiox Technical Support or your local distributor.

**ihcDirect® Kits, DAB Kits and Q-STAIN®(QSX™) X Antibody and Ancillary Reagents,
excluding DAB Chromogen Component
SAFETY DATA SHEET**

Section 1: Identification of the Substance/Mixture and Company

Product Name:	ihcDirect Kits, DAB Kits and Q-STAIN X (QSX) Reagents.
Catalog Numbers:	K3####-XXX, K46###-XXX, K47###-XXX, K50002-XXX, K51###-XXX, QH#####-XXX, QF#####-XXX, QC#####-XXX and QD#####-XXX where XXX is size and ###, ##### or ##### is specific to each kit.
Component Part Numbers:	C30005-XXXML, C30019-XXXML H3####-RXXX, F3####-QXXX and D28020-XXX. where XXX is size, R is ready-to-use format (manual), Q is ready-to-use format (automated) and ##### is specific to each antibody.
Product Description:	DAB 1:1 Diluent reagent (peroxidase substrate for use with DAB 1:1), ihc Blocker, ihc Enhancer, ihcDirect Antibody-pHRP conjugate reagent for use with ihc DAB (chromogen) reagent of DAB 1:1 (chromogen) reagent, and QSX- formulated antibody reagent, QSX-Blocker, QSX-Enhancer for use with QSX-DAB (QC30018-002 consist of 1 ml of chromogen and 1 ml of diluent aliquoted in two different compartments of the cartridge separated by a divider and only to be mixed before use).

Relevant identified uses of substance or mixture and uses advised against:

Use of substance/mixture: For *in vitro* diagnostic and research laboratory settings only

Manufacturer/Supplier:

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Section 2: Hazards Identification

GHS Classification:

These components have been classified as non-hazardous. This information is based on the physical and/or chemical nature and/or the concentration of ingredients.

GHS Label: Non-hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS: None.

Section 3: Composition/Information on Ingredients

No ingredients are hazardous according to OSHA criteria.

No components need to be disclosed according to the applicable regulations.

Section 4: First Aid Measures

Description of first aid measures:

After inhalation:	Remove to fresh air.
After skin contact:	Wash thoroughly with soap and water.
After eye contact:	Flush eyes with water as a precaution.
After ingestion:	Do NOT induce vomiting. Rinse mouth out with water.

Section 5: Firefighting Measures

Suitable extinguishing media:

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment	Use respirator for firefighting if necessary.

Advice for firefighters:

Wear protective clothing to prevent contact with eyes and skin. Ensure adequate ventilation. Collect on absorbent material and dispose of in according to federal, state and local environmental regulations.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Wear protective clothing to prevent contact with eyes and skin. Ensure adequate ventilation. Collect on absorbent material and dispose of in according to federal, state and local environmental regulations.

Section 7: Handling and Storage

Safe handling:

Use only with adequate ventilation. Wear eye protection and disposable nitrile gloves. Handle according to good industrial hygiene and safety practices.

Safe storage:

Keep container tightly closed and store according to product label. Store in a refrigerator at 2-8°C.

Section 8: Exposure Controls/Personal Protection

Exposure Limits: Contains no substances with occupational exposure limit values.

Controls:

Engineering controls:	Use enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits.
Personal protection:	
Hand protection	Disposable nitrile gloves.
Eye protection	Chemical goggles or face shield.

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Skin protection	Wear suitable protective clothing, e.g. lab coat.
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Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties:

Physical state:	Liquid	Flammability:	No data available
Color:	Clear liquid	Vapor pressure:	No data available
Odor:	None	Relative vapor density at 20°C:	No data available
pH:	No data available	Relative density:	No data available
Odor threshold:	No data available	Solubility:	Not applicable
Boiling point:	No data available	Viscosity, kinematic:	No data available
Melting point:	No data available	Explosive properties:	No data available
Flash point:	No data available	Oxidizing properties:	No data available

Section 10: Stability and Reactivity

Chemical stability.	Stable under recommended storage conditions.
Conditions to avoid.	Avoid pH extremes.
Materials to avoid.	Not applicable.
Hazardous reactions / decomposition products.	Not determined.

Section 11: Toxicological Information

Information on toxicological effects

Acute Toxicity:	No data available.
Chronic effects:	No data available.

Section 12: Ecological Information

No data available

Section 13: Disposal Considerations

Observe all federal, state and local environmental disposal regulations.

Section 14: Transport Information

In accordance with DOT

DOT (US):	Not a dangerous good.
RID/ADR:	Not regulated.
IMDG:	Not a dangerous good.
IATA:	Not a dangerous good.

Section 15: Regulatory information

Regulations SARA:

DAB Reagent, w/w:	CAS: 7411-49-6
SARA Section 302:	No chemicals in this material are subject to the reporting requirements.
SARA Section 311/312 Hazards:	No SARA Hazards.
SARA Section 313:	No chemicals in this material with known CAS# are subject to the reporting requirements.

California Prop 65 components:

This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

Section 16: Other information

The information contained in this Safety Data Sheet is believed to be accurate but it is the responsibility of users to determine the applicability of this information to the formulation of necessary safety precautions. Novodiox, Inc. shall not be held responsible for any damage resulting from the use of the above information contained within this document.

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