Safety Data Sheet

Revision Date 2023-12-26 **Revision Number** 12

1. Identification

Product identifier

Product Name 10X DAB Substrate

Other means of identification

Product Code S3052

UN number or ID number UN1992

Synonyms No information available

Recommended use of the chemical and restrictions on use

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

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier
USA:
Takara Bio USA, Inc.
2560 Orchard Parkway
San Jose, CA 95131, USA
Phone: 800.662.2566/888.251.6618
Web: www.takarabio.com

Emergency telephone number

Emergency telephone In case of emergency, call PERS (Professional Emergency Resource Services) 1-800-633-8253 (US) or 801-629-0667 (international).

2. Hazard(s) identification

Product Classification Data

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 1A
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

Hazard statements

Toxic if swallowed
Toxic in contact with skin
Toxic if inhaled
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
Suspected of causing genetic defects
May cause cancer
May damage fertility or the unborn child
Causes damage to organs
Causes damage to organs through prolonged or repeated exposure

Appearance aqueous solution **Physical state** Liquid **Odor** Alcohol

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/clothing and eye/face protection
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing must not be allowed out of the workplace
Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label)
IF exposed: Call a POISON CENTER or doctor
IF ON SKIN: Wash with plenty of water and soap
Call a POISON CENTER or doctor if you feel unwell
Take off immediately all contaminated clothing and wash it before reuse
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing
Call a POISON CENTER or doctor
IF SWALLOWED: Immediately call a POISON CENTER or doctor
Rinse mouth

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown acute toxicity

6 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

8 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
2 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Other information
Causes mild skin irritation. Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Weight-%	Trade secret
Methanol	67-56-1	50 - 60	*
Ethylene glycol	107-21-1	20 - 30	*
Diethylenetriaminepentaacetic Acid	67-43-6	5 - 10	*
Nickel Chloride	7718-54-9	1 - 5	*
Cobalt(II) chloride hexahydrate	7791-13-1	1 - 5	*
3,3 Diaminobenzidine	91-95-2	1 - 5	*

4. First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention.

Inhalation May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical attention. Immediate medical attention is required. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.

Eye contact Get immediate medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.

Skin contact Get immediate medical attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention. May produce an allergic reaction.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not breathe vapor or mist.

Most important symptoms and effects, both acute and delayed

Symptoms May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives. Difficulty in breathing. Prolonged contact may cause redness and irritation.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical Product is or contains a sensitizer. May cause sensitization by inhalation. May cause sensitization by skin contact.

Explosion Data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not breathe vapor or mist.

Other information Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

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.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Do not breathe vapor or mist. Handle product only in closed system or provide appropriate exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

8. Exposure controls/personal protection

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Methanol 67-56-1	TWA: 200 ppm STEL: 250 ppm Sk*	TWA: 200 ppm TWA: 260 mg/m³ (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m³ (vacated) Sk*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m³ STEL: 250 ppm STEL: 325 mg/m³
Ethylene glycol 107-21-1	TWA: 25 ppm vapor fraction STEL: 50 ppm vapor fraction STEL: 10 mg/m³ inhalable particulate matter, aerosol only	(vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m³	-
Nickel Chloride 7718-54-9	TWA: 0.1 mg/m³ Ni inhalable particulate matter	TWA: 1 mg/m³ Ni (vacated) TWA: 0.1 mg/m³ Ni	IDLH: 10 mg/m³ Ni TWA: 0.015 mg/m³ except Nickel carbonyl Ni
Cobalt(II) chloride hexahydrate 7791-13-1	TWA: 0.02 mg/m³ Co inhalable particulate matter	-	-

Biological occupational exposure limits

Chemical name	ACGIH
Methanol 67-56-1	15 mg/L - urine (Methanol) - end of shift
Nickel Chloride 7718-54-9	30 µg/L - urine (Nickel) - post-shift at end of workweek
Cobalt(II) chloride hexahydrate 7791-13-1	15 µg/L - urine (Cobalt) - end of shift at end of workweek

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing

and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not breathe vapor or mist. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	aqueous solution
Color	No information available
Odor	Alcohol
Odor Threshold	No information available

Property	**Values**	**Remarks • Method**
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point/boiling range (°C)	No data available	None known
Flash point	No data available	Open cup
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic Viscosity	No data available	None known

Other information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC content	No information available
Liquid Density	No information available
Bulk Density	No information available

10. Stability and reactivity

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to Avoid Excessive heat.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause sensitization in susceptible persons. (based on components). Toxic by inhalation.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May cause sensitization by skin contact. Toxic in contact with skin. Causes mild skin irritation.

Ingestion Specific test data for the substance or mixture is not available. May cause additional affects as listed under "Inhalation". Toxic if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing. Itching. Rashes. Hives. Difficulty in breathing. Prolonged contact may cause redness and irritation.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	177.90 mg/kg
ATEmix (dermal)	591.60 mg/kg
ATEmix (inhalation-dust/mist)	0.894 mg/l
ATEmix (inhalation-vapor)	55.90 mg/l

Unknown acute toxicity

6 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
8 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
2 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methanol 67-56-1	= 6200 mg/kg (Rat)	= 15840 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h
Ethylene glycol 107-21-1	= 4700 mg/kg (Rat)	= 10600 mg/kg (Rat)	> 2.5 mg/L (Rat) 6 h
Nickel Chloride 7718-54-9	= 175 mg/kg (Rat)	-	-
Cobalt(II) chloride hexahydrate 7791-13-1	= 766 mg/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes mild skin irritation.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an

allergic skin reaction.

Germ cell mutagenicity Contains a known or suspected mutagen. Classification based on data available for ingredients. Suspected of causing genetic defects.

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Nickel Chloride 7718-54-9	-	Group 1	Known	X
Cobalt(II) chloride hexahydrate 7791-13-1	A3	Group 2B	Reasonably Anticipated	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
NTP (National Toxicology Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

STOT - single exposure Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs if swallowed. Causes damage to organs in contact with skin.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard No information available.

Other adverse effects No information available.

Interactive effects No information available.

12. Ecological information

Ecotoxicity Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Methanol 67-56-1	-	LC50: =28200mg/L (96h, Pimephales promelas) LC50: >100mg/L (96h,	-	-

		Pimephales promelas) LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss) LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss) LC50: 13500 - 17600mg/L (96h, Lepomis macrochirus)		
Ethylene glycol 107-21-1	EC50: 6500 - 13000mg/L (96h, Pseudokirchneriella subcapitata)	LC50: =41000mg/L (96h, Oncorhynchus mykiss) LC50: 14 - 18mL/L (96h, Oncorhynchus mykiss) LC50: =27540mg/L (96h, Lepomis macrochirus) LC50: =40761mg/L (96h, Oncorhynchus mykiss) LC50: 40000 - 60000mg/L (96h, Pimephales promelas) LC50: =16000mg/L (96h, Poecilia reticulata)	-	EC50: =46300mg/L (48h, Daphnia magna)
Nickel Chloride 7718-54-9	EC50: =0.66mg/L (72h, Pseudokirchneriella subcapitata) EC50: 0.0063 - 0.0125mg/L (96h, Pseudokirchneriella subcapitata)	LC50: >100mg/L (96h, Brachydanio rerio) LC50: =1.3mg/L (96h, Cyprinus carpio) LC50: =6.9mg/L (96h, Cyprinus carpio) LC50: 18.1 - 25.5mg/L (96h, Lepomis macrochirus) LC50: 2.02 - 6.88mg/L (96h, Lepomis macrochirus) LC50: 6.7 - 9.7mg/L (96h, Oncorhynchus mykiss) LC50: 6.63 - 9.15mg/L (96h, Oncorhynchus mykiss) LC50: 1.9 - 4mg/L (96h, Pimephales promelas) LC50: 2.02 - 6.88mg/L (96h, Pimephales promelas) LC50: =25mg/L (96h, Pimephales promelas) LC50: =9.65mg/L (96h, Poecilia reticulata) LC50: 29.76 - 43.57mg/L (96h, Poecilia reticulata) LC50: 2.83 - 5.99mg/L (96h, Poecilia reticulata)	-	EC50: =6.68mg/L (48h, Daphnia magna) EC50: =0.51mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Methanol	-0.77

67-56-1	
Ethylene glycol 107-21-1	-1.36

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport information

DOT

UN number or ID number	UN1992
Proper shipping name	Flammable liquids, toxic, n.o.s.
Transport hazard class(es)	3
Subsidiary hazard class	6.1
Packing group	III
Reportable Quantity (RQ)	(Methanol: RQ (kg)= 2270.00, Ethylene glycol: RQ (kg)= 2270.00, Nickel Chloride: RQ (kg)= 45.40) Methanol: RQ (lb)= 5000.00, Ethylene glycol: RQ (lb)= 5000.00, Nickel Chloride: RQ (lb)= 100.00
Reportable quantity (kg) (calculated)	Methanol: RQ (kg)= 4540.00, Ethylene glycol: RQ (kg)= 9080.00, Nickel Chloride: RQ (kg)= 4540.00
Reportable quantity (lbs) (calculated)	Methanol: RQ (lb)= 10000.00, Ethylene glycol: RQ (lb)= 20000.00, Nickel Chloride: RQ (lb)= 10000.00
Special Provisions	B1, IB3, T7, TP1, TP28
DOT Marine Pollutant	NP
Marine pollutant	Cobalt(II) chloride hexahydrate, Nickel Chloride
Description	UN1992, Flammable liquids, toxic, n.o.s., 3 (6.1), III
Emergency Response Guide Number	131

TDG

UN number or ID number	UN1992
UN proper shipping name	Flammable liquid, toxic, n.o.s.
Transport hazard class(es)	3
Subsidiary hazard class	6.1
Packing group	III
Special Provisions	16
Marine pollutant name	Cobalt(II) chloride hexahydrate, Nickel Chloride.
Description	UN1992, Flammable liquid, toxic, n.o.s. (Methanol, Nickel Chloride), 3 (6.1), III

MEX

UN number or ID number	UN1992
UN proper shipping name	Flammable liquid, toxic, n.o.s.
Transport hazard class(es)	3
Subsidiary hazard class	6.1
Packing group	III
Technical Name	Methanol, Nickel Chloride
Description	UN1992, Flammable liquid, toxic, n.o.s. (Methanol, Nickel Chloride), 3 (6.1), III

Special Provisions 223, 274

ICAO (air)

UN number or ID number	UN1992
UN proper shipping name	Flammable liquid, toxic, n.o.s.
Transport hazard class(es)	3
Subsidiary hazard class	6.1
Packing group	III
Description	UN1992, Flammable liquid, toxic, n.o.s. (Methanol, Nickel Chloride), 3 (6.1), III
Special Provisions	A3

IATA

UN number or ID number	UN1992
UN proper shipping name	Flammable liquid, toxic, n.o.s.
Transport hazard class(es)	3
Subsidiary hazard class	6.1
Packing group	III
Technical Name	Methanol, Nickel Chloride
Description	UN1992, Flammable liquid, toxic, n.o.s. (Methanol, Nickel Chloride), 3 (6.1), III
Special Provisions	A3
ERG Code	3P

IMDG

UN number or ID number	UN1992
UN proper shipping name	Flammable liquid, toxic, n.o.s.
Transport hazard class(es)	3
Subsidiary hazard class	6.1
Packing group	III
EmS-No.	F-E, S-D
Special Provisions	223, 274
Marine pollutant	P
Marine Pollutant	Cobalt(II) chloride hexahydrate, Nickel Chloride
Description	UN1992, Flammable liquid, toxic, n.o.s., 3 (6.1), III, Residue: Last Contained

RID

UN number or ID number	UN1992
UN proper shipping name	Flammable liquid, toxic, n.o.s.
Transport hazard class(es)	3
Subsidiary hazard class	6.1
Packing group	III
Classification code	FT1
Special Provisions	274
Description	UN1992, Flammable liquid, toxic, n.o.s. (Methanol, Nickel Chloride), 3 (6.1), III

ADR

UN number or ID number	UN1992
UN proper shipping name	Flammable liquid, toxic, n.o.s.
Transport hazard class(es)	3
Subsidiary hazard class	6.1
Packing group	III
Classification code	FT1
Tunnel restriction code	(D/E)
Special Provisions	274
Description	UN1992, Flammable liquid, toxic, n.o.s. (Methanol, Nickel Chloride), 3 (6.1), III, (D/E)

ADN

UN number or ID number	UN1992
UN proper shipping name	Flammable liquid, toxic, n.o.s.
Transport hazard class(es)	3
Subsidiary hazard class	6.1
Packing group	III
Classification code	FT1

Special Provisions	274, 802
Description	UN1992, Flammable liquid, toxic, n.o.s. (Methanol, Nickel Chloride), 3 (6.1), III
Ventilation	VE01, VE02
Equipment Requirements	PP, EP, EX, TOX, A

15. Regulatory information

International Inventories

TSCA	-.
DSL/NDSL	-.
EINECS/ELINCS	-.
ENCS	-.
IECSC	-.
KECL	-.
PICCS	-.
AICS	-.

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US 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	SARA 313 - Threshold Values %
Methanol - 67-56-1	1.0
Ethylene glycol - 107-21-1	1.0
Nickel Chloride - 7718-54-9	0.1
Cobalt(II) chloride hexahydrate - 7791-13-1	0.1

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)
This product contains the following substances which are regulated 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
Nickel Chloride 7718-54-9	100 lb	X	-	X

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous	Reportable Quantity (RQ)

		Substances RQs	
Methanol 67-56-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Ethylene glycol 107-21-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Nickel Chloride 7718-54-9	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65
Methanol - 67-56-1	Developmental
Ethylene glycol - 107-21-1	Developmental
Nickel Chloride - 7718-54-9	Carcinogen Developmental Male Reproductive

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Methanol 67-56-1	X	X	X
Ethylene glycol 107-21-1	X	X	X
Nickel Chloride 7718-54-9	X	X	X
Cobalt(II) chloride hexahydrate 7791-13-1	X	-	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA	**Health hazards** 3	**Flammability** 1	**Instability** 0	**Special hazards** -
HMIS	**Health hazards** 2 *	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

Chronic Hazard Star Legend ** = Chronic Health Hazard*

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	Time weighted average	STEL	Short term exposure limit
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision Date	2023-12-26
Revision Note	No information available.

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet