N4000-29 Unclad Laminate

Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2024 (HazCom 2024)
Issue date: Jul.9 2015 Revision date: Feb.1 2026

SECTION 1: Identification

1.1. Identification

Product form	:	Mixture
Product name	:	N4000-29 Unclad Laminate
Other means of identification	:	N4000-29 Unclad Laminate

1.2. Recommended use and restrictions on use

Use of the substance/mixture	:	Consumer and industrial electronics
Restrictions on use	:	Consumer uses, Food and feed area, Drinking water, Skin contact

1.3. Supplier

AGC Multi Material America Inc.
1420 W 12th Place
Tempe, AZ 85281, USA
T +1-480-967-5600

AGC Multi Material Singapore Pte. Ltd.
4 Gul Crescent
Jurong, Singapore 629520
T +65-6861-7117

AGC Multi Material Europe SASU
25 Rue du Lyonnais
69800 Saint-Priest, France
T +33-6-15-75-21-53

1.4. Emergency telephone number

Emergency number	:	
AGC Multi Material America Inc.	:	+1-480-967-5600 (9am - 5pm MST) M - F
AGC Multi Material Singapore Pte. Ltd.	:	+65-6861-7117 (9am - 5pm SST) M - F
AGC Multi Material Europe SASU	:	+33-6-15-75-21-53 (9am - 5pm CET) M - F

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc. (% w/w)
Glass, oxide, chemicals	CAS-No.: 65997-17-3	40 – 60
boric acid	CAS-No.: 10043-35-3	< 0.3
1-methoxy-2-propanol, monopropylene glycol methyl ether	CAS-No.: 107-98-2	< 0.1

Name	Product identifier	Conc. (% w/w)
2-(2-ethoxyethoxy)ethanol	CAS-No.: 111-90-0	< 0.1
2-methoxypropanol	CAS-No.: 1589-47-5	< 0.0005

The specific chemical\ component identities and/or the exact component percentages of this material may be withheld as trade secrets. This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.

Symptoms/effects after skin contact : None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.

Symptoms/effects after eye contact : None under normal conditions. Dust from this product may cause eye irritation.

Symptoms/effects after ingestion : None under normal conditions.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Adapt extinguishing media to the environment for surrounding fires.

5.2. Specific hazards arising from the chemical

Fire hazard : No fire hazard.

Explosion hazard : No direct explosion hazard.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

Storage conditions : Keep cool. Protect from sunlight.

Packaging materials : Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Australia

No additional information is available.

Canada

Glass, oxide, chemicals (65997-17-3)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Synthetic Vitreous Fibres: Glass Fibres Continuous filament
OEL TWA	1 fibers/cm³ 5 mg/m³ Total
Notations and remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Regulatory reference	Alberta Regulation 87/2009 (Alberta Regulation 150/2020)
Canada (Quebec) - Occupational Exposure Limits	
Local name	Fibres-artificial vitreous mineral fibres - Fibrous glass, continuous filament
VEMP (OEL TWAEV)	1 fibers/cm³

Glass, oxide, chemicals (65997-17-3)	
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Synthetic Vitreous Fibres - Continuous filament glass fibres
OEL TWA	1 fibers/cm³ 5 mg/m³ Inhalable
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Synthetic vitreus fibers - Continuous filament glass fibers
OEL TWA	5 mg/m³ (I - Inhalable particulate matter)
	1 fibers/cm³ (F - Respirable fibers)
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Synthetic vitreus fibers - Continuous filament glass fibers
OEL TWA	5 mg/m³ (I - Inhalable particulate matter)
	1 fibers/cm³ (F - Respirable fibers)
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Synthetic vitreus fibers - Continuous filament glass fibers
OEL TWA	5 mg/m³ (I - Inhalable particulate matter)
	1 fibers/cm³ (F - Respirable fibers)
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH
Canada (Ontario) - Occupational Exposure Limits	
Local name	Continuous filament glass fibres (Synthetic Vitreous Fibres (Man Made Mineral Fibres))
OEL TWAEV	5 mg/m³ (I - Inhalable fraction) 1 fiber/mL (F - Respirable fibres)
Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Synthetic vitreus fibers - Continuous filament glass fibers
OEL TWA	5 mg/m³ (I - Inhalable particulate matter)
	1 fibers/cm³ (F - Respirable fibers)
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH
USA - ACGIH - Occupational Exposure Limits	
Local name	Synthetic vitreus fibers - Continuous filament glass fibers

Glass, oxide, chemicals (65997-17-3)	
ACGIH OEL TWA	5 mg/m³ (I - Inhalable particulate matter)
	1 fibers/cm³ (F - Respirable fibers)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2021

boric acid (10043-35-3)	
Canada (Quebec) - Occupational Exposure Limits	
Local name	Borate, inorganic compounds, (including boric acid)
VECD (OEL STEV)	6 mg/m³ Id
VEMP (OEL TWAEV)	2 mg/m³ Id
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Borate compounds, inorganic
OEL TWA	2 mg/m³ Inhalable
OEL STEL	6 mg/m³
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Boric acid
OEL TWA	2 mg/m³ (I - Inhalable particulate matter)
OEL STEL	6 mg/m³ (I - Inhalable particulate matter)
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Boric acid
OEL TWA	2 mg/m³ (I - Inhalable particulate matter)
OEL STEL	6 mg/m³ (I - Inhalable particulate matter)
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Boric acid
OEL TWA	2 mg/m³ (I - Inhalable particulate matter)
OEL STEL	6 mg/m³ (I - Inhalable particulate matter)
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Borate compounds, inorganic

boric acid (10043-35-3)	
OEL TWA	2 mg/m³ (inhalable fraction)
OEL STEL	6 mg/m³ (inhalable fraction)
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Borate compounds, inorganic
OEL TWA	2 mg/m³ (inhalable fraction)
OEL STEL	6 mg/m³ (inhalable fraction)
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Borate compounds, Inorganic
OEL TWAEV	2 mg/m³ (I - Inhalable fraction)
	6 mg/m³ (I - Inhalable fraction)
Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Boric acid
OEL TWA	2 mg/m³ (I - Inhalable particulate matter)
OEL STEL	6 mg/m³ (I - Inhalable particulate matter)
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Borate compounds, inorganic
OEL TWA	2 mg/m³ (inhalable fraction)
OEL STEL	6 mg/m³ (inhalable fraction)
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

China & Hong Kong

No additional information is available.

European Union

Glass, oxide, chemicals (65997-17-3)	
EU - Binding Occupational Exposure Limit (BOEL)	
Local name	Refractory ceramic fibres: Glass, oxide, chemicals
BOEL TWA	0.3 fibers/mL
Regulatory reference	DIRECTIVE (EU) 2019/130 (amending Directive 2004/37/EC)
USA - ACGIH - Occupational Exposure Limits	
Local name	Synthetic vitreus fibers - Continuous filament glass fibers
ACGIH OEL TWA	5 mg/m³ (I - Inhalable particulate matter)
	1 fibers/cm³ (F - Respirable fibers)

Glass, oxide, chemicals (65997-17-3)	
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2021

boric acid (10043-35-3)	
Austria - Occupational Exposure Limits	
Local name	Borsäure (Orthoborsäure)
Remark	Fortpflanzungsgefährdend: F, D
Regulatory reference	BGBl. II Nr. 156/2021
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Borsäure und Natriumborate
AGW (OEL TWA)	0.5 mg/m³ (E)
Peak exposure limitation factor	2(I)
Remark	AGS - Ausschuss für Gefahrstoffe; Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden; 10 - Der Arbeitsplatzgrenzwert bezieht sich auf den Elementgehalt des entsprechenden Metalls
Regulatory reference	TRGS900
Ireland - Occupational Exposure Limits	
Local name	Borate compounds inorganic: Boric acid
OEL TWA	2 mg/m³
Remark	Advisory OELV (Advisory Occupational Exposure Limit Values), Repr.1B (Substances which are presumed human reproductive toxicants)
Regulatory reference	Chemical Agents Code of Practice 2024
Latvia - Occupational Exposure Limits	
Local name	Borskābe
OEL TWA	10 mg/m³
Remark	Repr. 1B
Regulatory reference	Ministru kabineta 2008. gada 29. septembra noteikumi Nr. 803 (Grozījumi Ministru kabineta 2024. gada 26. martā noteikumiem Nr. 190).
Lithuania - Occupational Exposure Limits	
Local name	Boro rūgštis
IPRV (OEL TWA)	10 mg/m³
Remark	R (reprodukcijai toksiškas poveikis)
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Portugal - Occupational Exposure Limits	
Local name	Boratos, compostos inorgânicos
OEL TWA	2 mg/m³ I (Fraçao inalável)
OEL STEL	6 mg/m³ I (Fraçao inalável)
Remark	A4 (Agente não classificável como carcinogénico no Homem)

boric acid (10043-35-3)	
Regulatory reference	Norma Portuguesa NP 1796:2014
Spain - Occupational Exposure Limits	
Local name	Ácido bórico
VLA-ED (OEL TWA)	2 mg/m³
VLA-EC (OEL STEL)	6 mg/m³
Remark	TR1B (Sustancias de las que se supone que son tóxicas para la reproducción humana), s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas Base de datos de productos fitosanitarios http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf), r (Esta sustancia tiene establecidas restricciones a la fabricación, la comercialización o el uso en los términos especificados en el “Reglamento (CE) nº 1907/2006 sobre Registro, Evaluación, Autorización y Restricción de sustancias y preparados químicos” (REACH) de 18 de diciembre de 2006 (DOUE L 369 de 30 de diciembre de 2006). Las restricciones de una sustancia pueden aplicarse a todos los usos o sólo a usos concretos. El anexo XVII del Reglamento REACH contiene la lista de todas las sustancias restringidas y especifica los usos que se han restringido).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2025. INSHT
Switzerland - Occupational Exposure Limits	
Local name	Acide borique / Borsäure
MAK (OEL TWA)	1.8 mg/m³ (i) / (e)
KZGW (OEL STEL)	1.8 mg/m³ (i) / (e)
Notation	$R1_B$, SS_B / $R1_B$, SS_B
Remark	NIOSH. Exprimé en B / NIOSH. Als B berechnet
Regulatory reference	www.suva.ch, 01.01.2025
USA - ACGIH - Occupational Exposure Limits	
Local name	Boric acid
ACGIH OEL TWA	2 mg/m³ (I - Inhalable particulate matter)
ACGIH OEL STEL	6 mg/m³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025

Japan

Glass, oxide, chemicals (65997-17-3)	
Japan - Occupational Exposure Limits (JSOH)	
Local name	ガラス＃ glass, oxide, chemicals

JSOH OEL	0.01 mg/m³Ag として 0.05 mg/m³Cd として 0.05 mg/m³Co として 0.5 mg/m³Cr として 0.02 mg/m³ 吸入性粉塵、Mn として、有機マンガン化合物を除く 0.1 mg/m³ 総粉塵、Mn として、有機マンガン化合物を除く 0.03 mg/m³Pb として、アルキル鉛化合物を除く 0.1 mg/m³Sb として、スチビンを除く 0.1 mg/m³Se として、セレン化水素、六フッ素化セレンを除く
Regulatory reference	JCDB の調査による

Korea
No additional information is available.

Singapore
No additional information is available.

Taiwan
No additional information is available.

United States

N4000-29 Prepreg	
No additional information available	

Glass, oxide, chemicals (65997-17-3)	
No additional information available	
USA - ACGIH - Occupational Exposure Limits	
Local name	Synthetic vitreus fibers - Continuous filament glass fibers
ACGIH OEL TWA	5 mg/m³ (I - Inhalable particulate matter)
	1 fibers/cm³ (F - Respirable fibers)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2021

boric acid (10043-35-3)	
No additional information available	
USA - ACGIH - Occupational Exposure Limits	
Local name	Boric acid
ACGIH OEL TWA	2 mg/m³ (I - Inhalable particulate matter)
ACGIH OEL STEL	6 mg/m³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Appearance	:	Yellow solid. sheet. with copper cladding on one or both sides.
Color	:	Yellow
Odor	:	No data available
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	Not applicable
Boiling point	:	No data available
Flash point	:	Not applicable
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability	:	Non flammable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	1.6 – 2.3 (Water=1)
Solubility	:	Negligible.
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	> 392 °F (> 200°C)
Viscosity, kinematic	:	Not applicable
Viscosity, dynamic	:	No data available
Explosion limits	:	Not applicable
Explosive properties	:	Not classified.
Oxidizing properties	:	Not oxidising.

9.2. Other information

VOC content	:	< 0.1

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Decomposes on exposure to temperature rise.

10.4. Conditions to avoid

Excessive heat.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Acrid fumes of acids. Aliphatic hydrocarbons. aromatic hydrocarbons. Carbon oxides (CO, CO2). Nitrogen oxides. Hydrogen bromide. Hydrogen cyanide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Glass, oxide, chemicals (65997-17-3)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)

boric acid (10043-35-3)	
LD50 oral rat	> 2600 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral))
LD50 dermal rabbit	> 2000 mg/kg body weight Animal: rabbit, Guideline: other:
LC50 Inhalation - Rat	> 2.12 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: other:

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Reproductive toxicity: Not classified.
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : Not applicable
Symptoms/effects after inhalation : None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact : None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.
Symptoms/effects after eye contact : None under normal conditions. Dust from this product may cause eye irritation.
Symptoms/effects after ingestion : None under normal conditions.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

boric acid (10043-35-3)	
LC50 - Fish [1]	79.7 mg/l Test organisms (species): Pimephales promelas
LC50 - Fish [2]	74 mg/l Test organisms (species): Limanda limanda
NOEC chronic fish	6.4 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '34 d'

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional waste regulation : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations.

Product/Packaging disposal recommendations : Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.

Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Copper (7440-50-8)	
CERCLA RQ	5000 lb

15.2. International regulations

Australia

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS introductions Inventory) status: All the chemicals contained in this product are listed.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

No additional information is available.

Australian Pesticides and Veterinary Medicines Authority (APVMA)

No additional information is available.

Canada

Glass, oxide, chemicals (65997-17-3)
Listed on the Canadian DSL (Domestic Substances List)

1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)
Listed on the Canadian DSL (Domestic Substances List)

2-(2-ethoxyethoxy)ethanol (111-90-0)
Listed on the Canadian DSL (Domestic Substances List)

2-methoxypropanol (1589-47-5)
Listed on the Canadian DSL (Domestic Substances List)

boric acid (10043-35-3)
Listed on the Canadian DSL (Domestic Substances List)

China & Hong Kong

New Chemical Substance Environmental Management Registration Measures (MEE Order 12 of 2020)	
Inventory of Existing Chemical Substances in China (IECSC)	Contains listed substance(s) Glass, oxide, chemicals (CAS-No. 65997-17-3) Boric acid (CAS-No. 10043-35-3) 1-methoxy-2-propanol (CAS-No. 107-98-2) 2-(2-Ethoxyethoxy) ethanol (CAS-No. 111-90-0)
Law of the People's Republic of China on the Prevention and Control of Occupational Diseases	
Catalogue for Classification of Hazardous Factors of Occupational Diseases	Contains listed substance(s) Glass wool dust (CAS-No. 65997-17-3)
Regulations on the Safe Management of Hazardous Chemicals (Decree 591 of the State Council)	
Catalogue of Hazardous Chemicals (2015)	Contains Hazardous Chemical(s) Boric acid (CAS-No. 10043-35-3) 1-methoxy-2-propanol (CAS-No. 107-98-2) Considered as Hazardous Chemical(s)

Other domestic regulatory lists	
Dangerous Goods List (GB 12268)	Contains listed substance(s) 1-METHOXY-2-PROPANOL (CAS-No. 107-98-2)

European Union

EU-Regulations

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)
Contains substance(s) listed on the REACH Candidate List in concentrations ≥ 0.1 % or SCL: Boric acid (EC 233-139-2, CAS 10043-35-3)
Contains no substance(s) listed on REACH Annex XIV (Authorisation List)
Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)
Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)
Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)
Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)
VOC content : < 0.1
Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

Austria

Ordinance on Flammable Liquids (VbF) : Auto detect

France	
Occupational diseases	
Code	**Description**
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide

Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG)
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Override matching entry (12. BImSchV) : Is not subject to the Major Accidents Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : Glass, oxide, chemicals is listed

SZW-lijst van mutagene stoffen : Glass, oxide, chemicals is listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : boric acid is listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : boric acid,2-methoxypropanol are listed

Switzerland

Storage class (LK) : NG - Non-hazardous

Japan

Chemical Substances Control Law	Priority Assessment Chemical Substances (Article 2, Paragraph (5) of the Act) 2-(2-Ethoxyethoxy) ethanol
Industrial Safety and Health Law	【After amendment of April 2025】 Dangerous or Harmful Substances for Labelling of Chemical Name etc. (Act Art.57 Para.1, Enforcement Order, Art.18 Item 2 to 3, Ordinance on Industrial Safety and Health, Art.30 Appended Table No.2) Boric acid and its sodium salts
	【After amendment of April 2026】 Dangerous or Harmful Substances for Labelling of Chemical Name etc. (Act Art.57 Para.1, Enforcement Order, Art.18 Item 2 to 3, Ordinance on Industrial Safety and Health, Art.30 Appended Table No.2) Boric acid and its sodium salts
	Dangerous or Harmful Substances for Labelling of Chemical Name etc. (Act Art.57 Para.1, Enforcement Order, Art.18 Item 1 and 2, Appended Table No.9) Boric acid and its sodium salts
	Dangerous or Harmful Substances for Notification of Chemical Name etc. on SDS (Act, Art.57-2, Enforcement Order, Art.18-2 Item 1 and 2, Appended Table 9) Boric acid and its sodium salts (Ordinance number: 544) (under 5%)
	【After amendment of April 2025】 Dangerous or Harmful Substances for Notification of Chemical Name etc. on SDS (Act, Art.57-2 Para.1, Enforcement Order, Art.18-2 Item 2 to 3, Ordinance on Industrial Safety and Health, Art.34-2 Appended Table No.2)

	Boric acid and its sodium salts (under 5%)
	【After amendment of April 2026】 Dangerous or Harmful Substances for Notification of Chemical Name etc. on SDS (Act, Art.57-2 Para.1, Enforcement Order, Art.18-2 Item 2 to 3, Ordinance on Industrial Safety and Health, Art.34-2 Appended Table No.2) Boric acid and its sodium salts (under 5%)
Law Relating to Prevention of Marine Pollution and Maritime Disasters	Harmful Liquid Substances (Equivalent to Group Y) (Ministry of the Environmental Notification, Item 148, Item 2) Boric acid

Korea

Occupational Safety and Health Act		
Threshold Limit Values Chemicals	Applicable	107-98-2: Propylene glycol monomethyl ether
Substance Subject to Submission of PSM	Applicable	107-98-2: 1-methoxy-2-propanol (Flammable liquids) (Manufacture ・ Handling: 5,000kg (Storage: 200,000kg))
Chemical Substances Control Act		
Toxic Substances	Applicable	10043-35-3: Boric acid (Toxic-No.: 2019-1-942 (contains above 0.3%))
Safety Control of Dangerous Substances Act		
Safety Control of Dangerous Substances Act	Applicable	107-98-2: 1-Methoxy-2-propanol (Class 4 Flammable liquid - category 4 Second class Petroleum Water-soluble (Designated quantity: 2,000 litter)) 111-90-0: Di(ethylene glycol) ethyl ether (Class 4 Flammable liquid - category 5 Third class Petroleum Water-soluble (Designated quantity: 4,000 litter))
Act on Registration and Evaluation of Chemicals (K-REACH)		
Korea Existing Chemicals Inventory (KECI)	Applicable	65997-17-3: Glass, oxide (KECI-No.: KE-17630) 10043-35-3: Boric acid, crude natural (KECI-No.: KE-03499) 107-98-2: Propylene glycol methyl ether (KECI-No.: KE-23379) 111-90-0: 2-(2-Ethoxyethoxy) ethanol (KECI-No.: KE-10467)
Priority Existing Chemicals (PEC)	Applicable	10043-35-3: Boric acid, crude natural (PEC-No.: 370)
Substances Subject to Intensive Control	Applicable	10043-35-3: Boric acid

EU Regulatory Information	
EU Candidate list (SVHC)	Contains substance(s) listed on the REACH Candidate List in concentrations ≥ 0.1 % or SCL: Boric acid (EC 233-139-2, CAS 10043-35-3)

Singapore

Regulation		**Component / Mixture**
Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations	Applicable	Boric acid
Fire Safety Act/Fire Safety (Petroleum and Flammable Materials) Regulations	Petroleum and Flammable Materials	1-Methoxy-2-propanol

Environmental Protection and Management Act (Hazardous Substances)	List of Hazardous Substances	Boric acid
Poisons Rules	First Schedule	Boric acid
	Second Schedule	Boric acid
	Third Schedule	Boric acid

Taiwan

Occupational Safety and Health Act	Applicable	Glass, oxide, chemicals
Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste	Applicable	Glass, oxide, chemicals
Traffic Safety Rule	Applicable	Glass, oxide, chemicals

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
1-methoxy-2-propanol, monopropylene glycol methyl ether (107-98-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

US-SDS according to the federal final rule of hazard communication revised on 2024 (HazCom 2024)

Issued date : July 9 2015

Revision date : February 1 2026

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.