

Safety Data Sheet

ULTRABOND G-21 PART A

Safety Data Sheet dated: 08/30/2023 - version 6

Date of first edition: 05/16/2017



1. Identification

Product identifier

Mixture identification:

Trade name: ULTRABOND G-21 PART A

Trade code: 9024847

Recommended use and restrictions on use

Recommended use: Epoxy resins

Restrictions on use: Not available

Supplier's details

Company: MAPEI INC. (Canada)

2900 Francis-Hughes Avenue

H7L 3J5 - Laval - QC - CAN

Phone: 1-450-662-1212

Responsible: RDProductSafety@mapei.com

Emergency phone number

Emergency Number (USA/Canada) CHEMTREC 1(800) 424-9300 / 1(703) 527-3887

Emergency Transport CANUTEC (Canada) 1-613-996-6666

2. Hazard identification



Classification of the product

Skin irritation, Category 2

Causes skin irritation.

Skin Sensitization, Category 1B

May cause an allergic skin reaction.

Reproductive toxicity, Category 2

Suspected of damaging fertility or the unborn child if inhaled, in contact with skin and if swallowed.

Acute (short-term) aquatic hazard - Category 3

Harmful to aquatic life

Chronic (long-term) aquatic hazard - Category 3

Harmful to aquatic life with long lasting effects.

Label elements

Hazard pictograms and Signal Word



Warning

Hazard statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H361 Suspected of damaging fertility or the unborn child if inhaled, in contact with skin and if swallowed.

H402 Harmful to aquatic life

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.

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

P260 Do not breathe mist/vapours/spray.

P264 Wash skin thoroughly after handling.

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

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

P273 Avoid release to the environment.

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

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

P308+P313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P321	Specific treatment (see supplementary instructions on this label)
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with applicable regulations.

Other hazards

None

Ingredient(s) with unknown acute toxicity

None

This product contains crystalline silica (quartz sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of the hardened product may create a silica dust hazard)

3. Composition/information on ingredients

Substances

Not Relevant

Mixtures

Hazardous components within the meaning of WHMIS 2015 and related classification:

List of components

Qty	Name	Ident. Numb.	Classification	Registration Number
5-10 %	bis-[4-(2,3-epoxipropoxy)phenyl]propane	CAS:1675-54-3, 25085-99-8, 25068-38-6 EC:216-823-5 Index:603-073-00-2	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2A, H319; Aquatic Chronic 2, H411; Aquatic Acute 2, H401	01-2119456619-26-XXXX
2.5-5 %	alkyl epoxy resin; Oxirane, mono((C12-14-alkyloxy)methyl) derivatives	CAS:68609-97-2 EC:271-846-8 Index:603-103-00-4	Skin Irrit. 2, H315; Skin Sens. 1, H317	
1-2.5 %	silica sand; quartz	CAS:14808-60-7 EC:238-878-4	STOT RE 1, H372; Carc. 1A, H350	
0.49-1 %	4-nonylphenol, branched; Isononylphenol	CAS:84852-15-3 EC:284-325-5 Index:601-053-00-8	Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; Repr. 2, H361	

The actual concentration of the components listed above is withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

In case of skin contact:

- Immediately take off all contaminated clothing.
- Remove contaminated clothing immediately and dispose of safely.
- After contact with skin, wash immediately with soap and plenty of water.
- If skin irritation or rash occurs: Get medical advice/attention.

In case of eyes contact:

- After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
- Protect uninjured eye.

In case of Ingestion:

- Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

- Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

- Eye irritation
- Eye damages

Skin Irritation

Erythema

Indication of immediate medical attention and special treatment needed, if necessary

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

5. Fire-fighting measures

Suitable and unsuitable extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the hazardous product

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: Not available

Explosive properties: Not Relevant

Oxidizing properties: Not Relevant

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

7. Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Exercise the greatest care when handling or opening the container.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

Wash skin thoroughly after handling.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Data not available.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

Storage temperature: Not available

8. Exposure controls/personal protection

Control parameters

Community Occupational Exposure Limits (OEL)

OEL Type	Country	Occupational Exposure Limit
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silica sand; quartz CAS: 14808-60-7	ACGIH	Long Term: 0.025 mg/m3 A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis;
	ACGIH	Long Term: 0.025 mg/m3 A2 - Suspected Human Carcinogen;lung cancer;pulmonary fibrosis
	MAK AUSTRIA	Long Term: 0.15 mg/m3
	MAK SWITZERLAND	Long Term: 0.15 mg/m3

Appropriate engineering controls

Not available

Individual protection measures, such as personal protective equipment (PPE)

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; 29 CFR 1910.138 - ANSI/ISEA 105:

Polychloroprene - CR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Nitrile rubber - NBR: thickness $\geq 0,35\text{mm}$; breakthrough time $\geq 480\text{min}$.

Butyl rubber - IIR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Fluorinated rubber - FKM: thickness $\geq 0,4\text{mm}$; breakthrough time $\geq 480\text{min}$.

Use impervious gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to 29 CFR 1910.134 - CSA Z94.4 for information on selection and use of appropriate respiratory protection equipment.

Use adequate protective respiratory equipment.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: paste Beige

Odour: Characteristic

Odour threshold: Not Relevant

pH: Not Relevant

Melting point / freezing point: Not Relevant

Initial boiling point and boiling range: Not Relevant

Flash point: 94 °C (201 °F) (Closed Cup)

Evaporation rate: Not Relevant <1.0

Upper/lower flammability or explosive limits: Not Relevant

Vapour density: >1.0

Vapour pressure: Not Relevant >1.0

Relative density: 1.43 g/cm³

Solubility in water: Insoluble

Solubility in oil: Not Relevant

Partition coefficient (n-octanol/water): Not Relevant

Auto-ignition temperature: Not Relevant

Decomposition temperature: Not Relevant

Viscosity: Not Relevant

Explosive properties: Not Relevant

Oxidizing properties: Not Relevant

Solid/gas flammability: Not Relevant

Other information

Substance Groups relevant properties Not Relevant

Miscibility: Not Relevant

Fat Solubility: Not Relevant

Conductivity: Not Relevant

10. Stability and reactivity

Reactivity

No data available

Chemical stability

Data not available.

Possibility of hazardous reactions

None.

Conditions to avoid

No data available

Incompatible materials

Data not available.

Hazardous decomposition products

Data not available.

11. Toxicological information

Information on toxicological effects

Likely routes of exposure:

Skin contact, skin absorption, eye contact, inhalation and ingestion.

Toxicological Information of the Preparation

- | | |
|--------------------------------------|--|
| a) acute toxicity | Not classified |
| | Based on available data, the classification criteria are not met |
| b) skin corrosion/irritation | The product is classified: Skin irritation, Category 2(H315) |
| c) serious eye damage/irritation | Not classified |
| | Based on available data, the classification criteria are not met |
| d) respiratory or skin sensitisation | The product is classified: Skin Sensitization, Category 1B(H317) |
| e) germ cell mutagenicity | Not classified |
| | Based on available data, the classification criteria are not met |
| f) carcinogenicity | Not classified |
| | Based on available data, the classification criteria are not met |
| g) reproductive toxicity | The product is classified: Reproductive toxicity, Category 2(H361) |
| h) STOT-single exposure | Not classified |
| | Based on available data, the classification criteria are not met |
| i) STOT-repeated exposure | Not classified |
| | Based on available data, the classification criteria are not met |
| j) aspiration hazard | Not classified |
| | Based on available data, the classification criteria are not met |

Toxicological information on main components of the mixture:

- | | | |
|---|-------------------|-------------------------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | a) acute toxicity | LD50 Skin Rabbit = 20 mg/kg |
| | | LD50 Oral Rat = 11300 µL/kg |
| alkyl epoxy resin; Oxirane, mono((C12-14-alkyloxy)methyl) derivatives | a) acute toxicity | LD50 Skin Rabbit > 3987 mg/kg |
| | | LD50 Oral Rat = 17100 mg/kg |
| silica sand; quartz | a) acute toxicity | LD50 Oral Rat = 500 mg/kg |
| 4-nonylphenol, branched; Isononylphenol | a) acute toxicity | LD50 Oral Rat 1300 mg/kg |
| | | LD50 Skin Rabbit > 2000 mg/kg |
| | | LD50 Skin Rabbit = 2000 mg/kg |
| | | LD50 Oral Rat = 1300 mg/kg |

Substance(s) listed on the IARC Monographs:

- | | |
|---|---------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Group 3 |
|---|---------|

Substance(s) listed as OSHA Carcinogen(s):

silica sand; quartz

Substance(s) listed as NIOSH Carcinogen(s):

silica sand; quartz

Substance(s) listed on the NTP report on Carcinogens:

silica sand; quartz

12. Ecological information**Ecotoxicity**

Adopt good working practices, so that the product is not released into the environment.

List of Eco-Toxicological properties of the product

The product is classified: Acute (short-term) aquatic hazard - Category 3(H402), Chronic (long-term) aquatic hazard - Category 3(H412)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
bis-[4-(2,3-epoxipropoxy)phenyl]propane	CAS: 1675-54-3, 25085-99-8, 25068-38-6 - EINECS: 216-823-5 - INDEX: 603-073-00-2	a) Aquatic acute toxicity : LC50 Fish = 2 mg/L 96h
silica sand; quartz	CAS: 14808-60-7 - EINECS: 238-878-4	a) Aquatic acute toxicity : EC50 Daphnia = 1.8 mg/L 48h a) Aquatic acute toxicity : LC50 carp > 10000 mg/L 72h
4-nonylphenol, branched; Isononylphenol	CAS: 84852-15-3 - EINECS: 284-325-5 - INDEX: 601-053-00-8	LC50 Fish Pimephales promelas 0.135 mg/L 96h „Holcombe, G.W., Phipps, G.L., Knuth, M.L. and Felhaber, T. (1984) Environ. Pollut. (Series A) 35, 367-381 LC100 Fish Leuciscus idus 1.1 mg/L 48h „Huels study, 1988 (unpublished) LC50 Fish Leuciscus idus 0.95 mg/L 48h „Huels study, 1988 (unpublished) LOEC Fish Pimephales promelas 14 µg/L 33d „Chemical Manufacturers Association (1991) Two environmental effects 4-Nonylphenol final reports 1. Chronic toxicity of Nonylphenol to the Mysid, Mysidopsis bahia: EnviroSystems Study Number 8977-CMA 2. Early life stage toxicity of Nonylphenol to the fath NOEC Fish Pimephales promelas 7.4 µg/L 33d „Chemical Manufacturers Association (1991) Two environmental effects 4-Nonylphenol final reports 1. Chronic toxicity of Nonylphenol to the Mysid, Mysidopsis bahia: EnviroSystems Study Number 8977-CMA 2. Early life stage toxicity of Nonylphenol to the fath EC100 Daphnia Daphnia magna > 400 µg/L 48h „Huels report No. DK-522, 1992 (unpublished) EC0 Daphnia Daphnia magna < 100 µg/L 48h „Huels report No. DK-522, 1992 (unpublished) EC50 Daphnia Daphnia magna 140 µg/L 48h „Huels report No. DK-522, 1992 (unpublished) LOEC Daphnia Daphnia magna > 100 µg/L 21d „Huels report No. DL-143, 1992 (unpublished) NOEC Daphnia Daphnia magna 0.024 mg/L 21d ICI PLC (1991) Nonyl Phenol: Chronic Toxicity to Daphnia Magna Report No: BLS1319/B (Interim) BL4176/B (Final) EC90 Algae Scenedesmus subspicatus (Desmodesmus subspicatus) 3.2 mg/L 72h Huels study (unpublished) EC10 Algae Scenedesmus subspicatus (Desmodesmus subspicatus) 0.5 mg/L 72h Huels study (unpublished) EC50 Algae Scenedesmus subspicatus (Desmodesmus subspicatus) 1.3 mg/L

72h Huels study (unpublished)

a) Aquatic acute toxicity : LC50 Fish Pimephales promelas = 0.135 mg/L 96h IUCLID

a) Aquatic acute toxicity : LC50 Fish Lepomis macrochirus = 0.1351 mg/L 96h EPA

a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 0.14 mg/L 48h IUCLID

a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata 0.36 mg/L 96h EPA

a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata 0.16 mg/L 72h EPA

a) Aquatic acute toxicity : EC50 Algae Desmodesmus subspicatus = 1.3 mg/L 72h IUCLID

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

13. Disposal considerations

Safe handling and methods for disposal

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

14. Transport information

Not classified as dangerous in the meaning of transport regulations.

UN number

TDG-UN number: Not Applicable

ADR-UN number: Not Applicable

DOT-UN Number: Not Applicable

IATA-Un number: Not Applicable

IMDG-Un number: Not Applicable

UN proper shipping name

TDG-Shipping Name: Not Applicable

ADR-Shipping Name: Not Applicable

DOT-Proper Shipping Name: Not Applicable

IATA-Technical name: Not Applicable

IMDG-Technical name: Not Applicable

Transport hazard class(es)

TDG-Class: Not Applicable

ADR-Class: Not Applicable
DOT-Hazard Class: Not Applicable
IATA-Class: Not Applicable
IMDG-Class: Not Applicable

Packing group

TDG-Packing Group: Not Applicable
ADR-Packing Group: Not Applicable
DOT Packing Group: Not Applicable
IATA-Packing group: Not Applicable
IMDG-Packing group: Not Applicable

Environmental hazards

Marine pollutant: No
Environmental Pollutant: Not Applicable
DOT-RQ: No

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

Not Applicable

Special precautions in connection with transport or conveyance

TDG:

Not Applicable

Department of Transportation (DOT):

Not Applicable

Road and Rail (ADR-RID):

Not Applicable

Air (IATA):

Not Applicable

Sea (IMDG):

Not Applicable

15. Regulatory information

Canada - Federal regulations

DSL - Domestic Substances List

All the substances are listed in the DSL.

NDSL - Non Domestic Substances List

This product complies with NDSL inventory

NPRI - National Pollutant Release Inventory

NPRI (National Pollutant Release Inventory) - List of substances listed.

No substances listed

USA - Federal regulations

TSCA - Toxic Substances Control Act

All the components are listed on the TSCA inventory

TSCA listed substances:

bis-[4-(2,3-epoxipropoxy)phenyl]propane is listed in TSCA Section 8b

alkyl epoxy resin; Oxirane, mono((C12-14-alkyloxy)methyl) derivatives is listed in TSCA Section 8b

silica sand; quartz is listed in TSCA Section 8b

4-nonylphenol, branched; Isononylphenol is listed in TSCA Section 8b Section 8a - PAIR Section 5a - SNUR Section 12b

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

No substances listed

Section 304 - Hazardous substances:

No substances listed

Section 313 - Toxic chemical list:

4-nonylphenol, branched; Isononylphenol

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA:

No substances listed

CAN-HAE/A2	Aquatic Acute 2	Acute (short-term) aquatic hazard - Category 2
CAN-HAE/C1	Aquatic Chronic 1	Chronic (long-term) aquatic hazard - Category 1
CAN-HAE/C2	Aquatic Chronic 2	Chronic (long-term) aquatic hazard - Category 2

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
 IMDG: International Maritime Code for Dangerous Goods.
 IATA: International Air Transport Association.
 IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
 ICAO: International Civil Aviation Organization.
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
 GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
 CLP: Classification, Labeling, Packaging.
 EINECS: European Inventory of Existing Commercial Chemical Substances.
 INCI: International Nomenclature of Cosmetic Ingredients.
 CAS: Chemical Abstracts Service (division of the American Chemical Society).
 GefStoffVO: Ordinance on Hazardous Substances, Germany.
 LC50: Lethal concentration, for 50 percent of test population.
 LD50: Lethal dose, for 50 percent of test population.
 DNEL: Derived No Effect Level.
 PNEC: Predicted No Effect Concentration.
 TLV: Threshold Limiting Value.
 TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
 STEL: Short Term Exposure limit.
 STOT: Specific Target Organ Toxicity.
 WGK: German Water Hazard Class.
 KSt: Explosion coefficient.

Paragraphs modified from the previous revision:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 5. FIRE-FIGHTING MEASURES
- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 10. STABILITY AND REACTIVITY
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION
- 16. OTHER INFORMATION