SAFETY DATA SHEET

mira 3650 multipox

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name

mira 3650 multipox

Unique formula identifier (UFI)

RD3A-T0K3-Q005-8H8H

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture

Surface treatment

Uses advised against

No special

1.3. Details of the supplier of the safety data sheet

Company and address

mira byggeprodukter a/s
Egegårdsvej 2
4621 Gadstrup
+45 46 19 19 46
www.mira.eu.com

Contact person

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E-mail

info@mira.eu.com

SDS date

21-09-2021

SDS Version

3.0

Date of previous version

2021-09-17 (3.0)

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).
See section 4 “First aid measures”.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Corr. 1B; H314, Causes severe skin burns and eye damage.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Dam. 1; H318, Causes serious eye damage.

Aquatic Chronic 3; H412, Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram(s)

Signal word

Danger

Hazard statement(s)

Causes severe skin burns and eye damage. (H314)
May cause an allergic skin reaction. (H317)
Harmful to aquatic life with long lasting effects. (H412)

Safety statement(s)

General

If medical advice is needed, have product container or label at hand. (P101)
Keep out of reach of children. (P102)

Prevention

Do not breathe vapour. (P260)
Avoid release to the environment. (P273)
Wear protective gloves/protective clothing/eye protection/face protection. (P280)

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. (P301+P330+P331)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
Immediately call a POISON CENTER / doctor. (P310)

Storage

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Disposal

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

Hazardous substances

Dolomite
benzyl alcohol
3-aminomethyl-3,5,5-trimethylcyclohexylamine
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
AMORPHOUS SILICA
Titanium dioxide
Phenol, styrenated
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

2.3. Other hazards

Additional labelling

EUH205, Contains epoxy constituents. May produce an allergic reaction.

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
bis-[4-(2,3-epoxipropoxi)phenyl]propane	CAS No.: 1675-54-3 EC No.: 216-823-5 REACH: 01-2119456619-26 Index No.: 603-073-00-2	5-10%	Skin Irrit. 2, H315 (SCL: 50.00 %) Skin Sens. 1, H317 Eye Irrit. 2, H319 (SCL: 5.00 %) Aquatic Chronic 2, H411	
Formaldehyde, oligomeric reaction products with 1-	CAS No.: 9003-36-5	5-10%	Skin Irrit. 2, H315 (SCL: 25.00 %) Skin Sens. 1, H317	

chloro-2,3-epoxypropane and phenol	EC No.: 500-006-8 REACH: 01-2119454392-40 Index No.:		Aquatic Chronic 2, H411	
benzyl alcohol	CAS No.: 100-51-6 EC No.: 202-859-9 REACH: Index No.: 603-057-00-5	3-5%	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319	[9]
3-aminomethyl-3,5,5-trimethylcyclohexylamine	CAS No.: 2855-13-2 EC No.: 220-666-8 REACH: 01-2119514687-32 Index No.: 612-067-00-9	3-5%	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 3, H412	
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	CAS No.: 68609-97-2 EC No.: 271-846-8 REACH: 01-2119485289-22 Index No.: 603-103-00-4	1-3%	Skin Irrit. 2, H315 Skin Sens. 1, H317	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine	CAS No.: 38294-64-3 EC No.: 500-101-4 REACH: 01-2119965165-33 Index No.:	1-3%	Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 3, H412	
Titanium dioxide	CAS No.: 13463-67-7 EC No.: 236-675-5 REACH: Index No.:	1-3%		
Phenol, styrenated	CAS No.: 61788-44-1 EC No.: 262-975-0 REACH: 01-2119980970-27 Index No.:	<1%	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	
m-phenylenebis(methylamine)	CAS No.: 1477-55-0 EC No.: 216-032-5 REACH: 01-2119480150-50 Index No.:	<1%	Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1B, H317 Eye Dam. 1, H318 Acute Tox. 4, H332 Aquatic Chronic 3, H412 EUH071	

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	CAS No.: 25513-64-8 EC No.: 247-063-2 REACH: Index No.:	<1%	Acute Tox. 4, H302 Skin Sens. 1A, H317 Eye Dam. 1, H318 Skin Corr. 1A, H314

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.
If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Not applicable

4.2. Most important symptoms and effects, both acute and delayed

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.
Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.
Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:
Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Nitrogen oxides (NO_x)
Carbon oxides (CO / CO2).

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.
To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 on “Disposal considerations” in regard of handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.
Avoid direct contact with the product.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

Store in a closed original container in a dry and well-ventilated place.

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Titanium dioxide
Long term exposure limit (8 hours) (mg/m³): 10(inhalable)/4(respirable)

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020)

DNEL

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
DNEL	12,25 mg/m³
Route of exposure	Inhalation
Duration	Short term – Systemic effects
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
DNEL	29.39 mg/m³
Route of exposure	Inhalation
Duration	Long term – Systemic effects
Product/substance	benzyl alcohol
DNEL	450 mg/m3
Route of exposure	Inhalation
Duration	Short term – Systemic effects - Workers
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
DNEL	20,1 mg/m³
Route of exposure	Inhalation
Duration	Short term – Systemic effects
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
DNEL	0,526 mg/kg legemsvægt/dag
Route of exposure	Oral
Duration	Long term – Systemic effects
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
DNEL	3,6 mg/m³
Route of exposure	Inhalation
Duration	Long term – Systemic effects
Product/substance	m-phenylenebis(methylamine)
DNEL	0,2 mg/m³
Route of exposure	Inhalation
Duration	Long term – Local effects
Product/substance	m-phenylenebis(methylamine)
DNEL	0,33 mg/kg
Route of exposure	Dermal

Duration	Long term – Systemic effects
Product/substance	m-phenylenebis(methylamine)
DNEL	1,2 mg/m³
Route of exposure	Inhalation
Duration	Long term – Systemic effects

PNEC

Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
PNEC	10 mg/l
Route of exposure	Sewage treatment plant
Duration of Exposure	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	0,06 mg/l
Route of exposure	Freshwater
Duration of Exposure	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	0,006 mg/l
Route of exposure	Marine water
Duration of Exposure	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	5,784 mg/kg
Route of exposure	Freshwater sediment
Duration of Exposure	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	0578 mg/kg
Route of exposure	Marine water sediment
Duration of Exposure	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	1,121 mg/kg
Route of exposure	Soil
Duration of Exposure	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	3,18 mg/l
Route of exposure	Sewage treatment plant
Duration of Exposure	

Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
PNEC	30,72 mg/kg
Route of exposure	Marine water sediment
Duration of Exposure	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
PNEC	307,16 mg/kg
Route of exposure	Freshwater sediment
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,094 mg/l
Route of exposure	Freshwater
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,009 mg/l
Route of exposure	Marine water
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,152 mg/l
Route of exposure	Intermittent release
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	10 mg/l
Route of exposure	Sewage treatment plant
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,43 mg/kg
Route of exposure	Freshwater sediment
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,045 mg/kg
Route of exposure	Soil
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,043 mg/kg
Route of exposure	Marine water sediment

Duration of Exposure

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and -showers are clearly marked.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
In case of insufficient ventilation, wear respiratory protection. Filter type: A / AX. Respiratory protection must comply with one of the following standards: EN 136/140/145			

Skin protection

Recommended	Type/Category	Standards
Remove soiled clothing and wash skin thoroughly with soap and water when work is complete.		

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	-	-	EN374-2	

Eye protection

Type	Standards	
Wear safety goggles if there is a risk of splashes in the eyes. Eye protection must comply with EN 166.	EN 166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form
Paste

Colour
Various colours

Odour
Mild

Odour threshold (ppm)
Testing not relevant or not possible due to nature of the product.

pH
Testing not relevant or not possible due to nature of the product.

Density (g/cm³)
Testing not relevant or not possible due to nature of the product.

Viscosity
Testing not relevant or not possible due to nature of the product.

Phase changes

Melting point (°C)
Testing not relevant or not possible due to nature of the product.

Boiling point (°C)
Testing not relevant or not possible due to nature of the product.

Vapour pressure
Testing not relevant or not possible due to nature of the product.

Vapour density
Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°C)
Testing not relevant or not possible due to nature of the product.

Evaporation rate (n-butylacetate = 100)

Data on fire and explosion hazards

Flash point (°C)
Testing not relevant or not possible due to nature of the product.

Ignition (°C)
Testing not relevant or not possible due to nature of the product.

Auto flammability (°C)
Testing not relevant or not possible due to nature of the product.

Explosion limits (% v/v)
Testing not relevant or not possible due to nature of the product.

Explosive properties
Testing not relevant or not possible due to nature of the product.

Oxidizing properties
Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water
Testing not relevant or not possible due to nature of the product.

n-octanol/water coefficient
Testing not relevant or not possible due to nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	
Species	Rat
Route of exposure	
Test	LD50
Result	>2000 mg/kg
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	
Species	Rat
Route of exposure	Dermal
Test	LD50
Result	>2000 mg/kg mg/L
Other information	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	

Result	>4000 mg/kg, 4,5 ml/kg mg/kg
Other information	

Skin corrosion/irritation

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Rabbit
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	
Product/substance	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	
Product/substance	Phenol, styrenated
Test method	OECD 404
Species	Rabbit
Duration	No data available.
Result	Adverse effect observed (Irritating)
Other information	
Product/substance	m-phenylenebis(methylamine)
Test method	
Species	Rat
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Species	Rabbit
Duration	No data available.
Result	Adverse effect observed (Highly corrosive)
Other information	

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Product/substance	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	
Duration	No data available.
Result	Adverse effect observed (Causes serious eye damage)
Other information	
Product/substance	Phenol, styrenated
Test method	OECD 405 Acute Eye Irritation/Corrosion
Species	Rabbit
Duration	24 h
Result	No adverse effect observed (Not irritating)
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	OECD 405 Acute Eye Irritation/Corrosion
Species	Rabbit
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	

Causes severe skin burns and eye damage.
Causes serious eye damage.

Respiratory sensitisation

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	OECD 406
Species	Guinea pig
Result	Adverse effect observed (sensitising)
Other information	
Product/substance	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	
Result	Adverse effect observed (sensitising)
Other information	
Product/substance	m-phenylenebis(methylamine)
Test method	

Species	
Result	Adverse effect observed (sensitising)
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	OECD 406
Species	Guinea pig
Result	Adverse effect observed (sensitising)
Other information	

Skin sensitisation

Product/substance	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	
Result	Adverse effect observed (sensitising)
Other information	

Germ cell mutagenicity

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	OECD 476
Species	
Conclusion	Adverse effect observed
Other information	
Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	OECD 471
Species	
Conclusion	Adverse effect observed
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	OECD 471
Species	
Conclusion	Adverse effect observed
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	OECD 476
Species	

Conclusion	Adverse effect observed
Other information	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Test method	OECD 471
Species	
Conclusion	Adverse effect observed
Other information	
Product/substance	Phenol, styrenated
Test method	OECD 471
Species	salmonella typhimurium
Conclusion	Adverse effect observed
Other information	

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

Other information

bis-[4-(2,3-epoxipropoxi)phenyl]propane has been classified by IARC as a group 3 carcinogen.
Titanium dioxide has been classified by IARC as a group 2B carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	9,4 mg/L
Other information	

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	1,5 mg/L
Other information	
Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	2,7 mg/L
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	1,8 mg/L
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	2,55 mg/L
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	
Species	Fish

Compartment	
Duration	96 hours
Test	LC50
Result	2,54 mg/L
Other information	
Product/substance	benzyl alcohol
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	460.00 mg/L
Other information	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	37 mg/L
Other information	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	110 mg/L
Other information	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50

Result	23 mg/L
Other information	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	
Result	7,2 mg/L
Other information	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	
Result	>100 mg/L
Other information	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	IC50
Result	843,75 mg/L
Other information	
Product/substance	Phenol, styrenated
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	> 1 - 10 mg/L
Other information	
Product/substance	Phenol, styrenated

Test method	
Species	Daphnia
Compartment	
Duration	3 hours
Test	EC50
Result	362 mg/L
Other information	
Product/substance	m-phenylenebis(methylamine)
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	87,6 mg/L
Other information	
Product/substance	m-phenylenebis(methylamine)
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	15,2 mg/L
Other information	
Product/substance	m-phenylenebis(methylamine)
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	32,1 mg/L
Other information	
Product/substance	m-phenylenebis(methylamine)
Test method	
Species	microorganisms
Compartment	

Duration	No data available.
Test	EC50
Result	>1000 mg/L
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	43,5 mg/L
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Species	Daphnia
Compartment	
Duration	24 h
Test	EC50
Result	31,5 mg/L
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Species	Fish
Compartment	
Duration	48 hours
Test	LC50
Result	174 mg/L
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Species	
Compartment	
Duration	56 days
Test	NOEC
Result	>=1000 mg/kg

Other information	

12.2. Persistence and degradability

Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Biodegradable	No
Test method	
Result	ikke bionedbrydelig
Product/substance	benzyl alcohol
Biodegradable	Yes
Test method	OECD 301 A
Result	95-97 %
Product/substance	m-phenylenebis(methylamine)
Biodegradable	No
Test method	OECD 301 B
Result	ikke let bionedbrydelig

12.3. Bioaccumulative potential

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	
Potential bioaccumulation	No data available
LogPow	3,242 (25°C)
BCF	31
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	
Potential bioaccumulation	No
LogPow	2,7 - 3,6
BCF	150
Other information	
Product/substance	benzyl alcohol
Test method	
Potential bioaccumulation	No
LogPow	1.1
BCF	1
Other information	

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Potential bioaccumulation	No data available
LogPow	0,99 (23°C)
BCF	No data available
Other information	
Product/substance	Phenol, styrenated
Test method	
Potential bioaccumulation	No data available
LogPow	> 4 (22 °C)
BCF	14.43
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Potential bioaccumulation	No data available
LogPow	-0,3 (25°C)
BCF	No data available
Other information	

12.4. Mobility in soil

bis-[4-(2,3-epoxipropoxi)phenyl]propane
LogKoc = 445.00, Low mobility potential.
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
LogKoc = 4460.00, Low mobility potential.
benzyl alcohol
LogKoc = 5.00, Low mobility potential.
3-aminomethyl-3,5,5-trimethylcyclohexylamine
LogKoc = 928.00, Low mobility potential.
Phenol, styrenated
LogKoc = 856.10, Low mobility potential.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.
This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.
HP 8 – Corrosive

Avoid discharge to lakes, streams, sewers, etc.
Dispose of contents/container to an approved waste disposal plant.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

17 09 03	Other construction and demolition wastes (including mixed wastes) containing dangerous substances - Unhardened material
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03 - Fully hardened material

Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 - 14.4

This product is within scope of the regulations of transport of dangerous goods.

ADR/RID

UN- or ID number	UN proper shipping name	Labels	Packing group	Tunnel restriction code
2735	AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.	8	II	2 (E)

IMDG

UN- or ID number	UN proper shipping name	Labels	Packing group	EmS
2735	AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.	8	II	F-A, S-B

"MARINE POLLUTANT"

No

IATA

UN- or ID number	UN proper shipping name	Labels	Packing group

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Restrictions for application

People under the age of 18 shall not be exposed to this product.
Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible

technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

Use of this product requires dedicated training in work with polyurethane and epoxy products.

SEVESO - Categories / dangerous substances

Not applicable

Additional information

Tactile warning.

If this product is sold in retail, it must be delivered with child-resistant fastening.

Sources

The Management of Health and Safety at Work Regulations 1999
The Health and Safety at Work etc. Act 1974 Regulations 2013.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

EUH071, Corrosive to the respiratory tract.
H302, Harmful if swallowed.
H312, Harmful in contact with skin.
H314, Causes severe skin burns and eye damage.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.
H319, Causes serious eye irritation.
H332, Harmful if inhaled.
H411, Toxic to aquatic life with long lasting effects.
H412, Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit.
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVCB = Complex hydrocarbon substance
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

The safety data sheet is validated by

Reyhane R. Kanafi

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: GB-en

SAFETY DATA SHEET

mira 3650 multipox pasta komp. A

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name

mira 3650 multipox pasta komp. A

Unique formula identifier (UFI)

FF3A-A08H-000N-XUUK

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture

tile adhesive / grout

Uses advised against

No special

1.3. Details of the supplier of the safety data sheet

Company and address

mira byggeprodukter a/s
Egegårdsvej 2
4621 Gadstrup
+45 46 19 19 46
www.mira.eu.com

Contact person

-

E-mail

info@mira.eu.com

SDS date

21-09-2021

SDS Version

5.0

Date of previous version

2021-09-17 (4.0)

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).
See section 4 “First aid measures”.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Irrit. 2; H315, Causes skin irritation.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Dam. 1; H318, Causes serious eye damage.

Aquatic Chronic 3; H412, Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram(s)

Signal word

Danger

Hazard statement(s)

Causes skin irritation. (H315)
May cause an allergic skin reaction. (H317)
Causes serious eye damage. (H318)
Harmful to aquatic life with long lasting effects. (H412)

Safety statement(s)

General

If medical advice is needed, have product container or label at hand. (P101)
Keep out of reach of children. (P102)

Prevention

Avoid release to the environment. (P273)
Wear protective gloves/protective clothing/eye protection/face protection. (P280)

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
Immediately call a POISON CENTER / doctor. (P310)

Storage

-

Disposal

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

▼Hazardous substances

Dolomite
bis-[4-(2,3-epoxipropoxi)phenyl]propane
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Titanium dioxide
AMORPHOUS SILICA
benzyl alcohol

2.3. Other hazards

Additional labelling

EUH205, Contains epoxy constituents. May produce an allergic reaction.

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
bis-[4-(2,3-epoxipropoxi)phenyl]propane	CAS No.: 1675-54-3 EC No.: 216-823-5 REACH: 01-2119456619-26 Index No.: 603-073-00-2	10-15%	Skin Irrit. 2, H315 (SCL: 50.00 %) Skin Sens. 1, H317 Eye Irrit. 2, H319 (SCL: 5.00 %) Aquatic Chronic 2, H411	
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS No.: 9003-36-5 EC No.: 500-006-8 REACH: 01-2119454392-40 Index No.:	3-8%	Skin Irrit. 2, H315 (SCL: 25.00 %) Skin Sens. 1, H317 Aquatic Chronic 2, H411	

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	CAS No.: 68609-97-2 EC No.: 271-846-8 REACH: 01-2119485289-22 Index No.: 603-103-00-4	2-5%	Skin Irrit. 2, H315 Skin Sens. 1, H317	
Titanium dioxide	CAS No.: 13463-67-7 EC No.: 236-675-5 REACH: Index No.:	1-3%		
benzyl alcohol	CAS No.: 100-51-6 EC No.: 202-859-9 REACH: Index No.: 603-057-00-5	1-3%	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319	[9]

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

IF ON SKIN: Wash with plenty of water and soap.
Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.
If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Not applicable

4.2. Most important symptoms and effects, both acute and delayed

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.
Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or

lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:
Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Carbon oxides (CO / CO2).

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.
To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 on “Disposal considerations” in regard of handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.
Avoid direct contact with the product.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

Store in a closed original container in a dry and well-ventilated place.

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

—

Titanium dioxide
Long term exposure limit (8 hours) (mg/m³): 10(inhalable)/4(respirable)

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020)

DNEL

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
DNEL	12,25 mg/m³
Route of exposure	Inhalation
Duration	Short term – Systemic effects
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
DNEL	29.39 mg/m³
Route of exposure	Inhalation
Duration	Long term – Systemic effects
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
DNEL	3,6 mg/m³
Route of exposure	Inhalation
Duration	Long term – Systemic effects
Product/substance	benzyl alcohol
DNEL	450 mg/m3
Route of exposure	Inhalation
Duration	Short term – Systemic effects - Workers

PNEC

Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
PNEC	10 mg/l
Route of exposure	Sewage treatment plant
Duration of Exposure	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
PNEC	30,72 mg/kg

Route of exposure	Marine water sediment
Duration of Exposure	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
PNEC	307,16 mg/kg
Route of exposure	Freshwater sediment
Duration of Exposure	

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and -showers are clearly marked.

Hygiene measures

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

No specific requirements

Individual protection measures, such as personal protective equipment

Generally

Wash contaminated clothing before reuse.

Use only CE marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
In case of insufficient ventilation, wear respiratory protection. Filter type: A / AX. Respiratory protection must comply with one of the following standards: EN 136/140/145			

Skin protection

Recommended	Type/Category	Standards
Remove soiled clothing and wash skin thoroughly with soap and water when work is complete.		

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	-	-	EN374-2	

Eye protection

Type	Standards	
Wear safety goggles if there is a risk of splashes in the eyes. Eye protection must comply with EN 166.	EN 166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form

Paste

Colour

Various colours

Odour

Testing not relevant or not possible due to nature of the product.

Odour threshold (ppm)

Testing not relevant or not possible due to nature of the product.

pH

Testing not relevant or not possible due to nature of the product.

Density (g/cm³)

Testing not relevant or not possible due to nature of the product.

Viscosity

Testing not relevant or not possible due to nature of the product.

Phase changes

Melting point (°C)

Testing not relevant or not possible due to nature of the product.

Boiling point (°C)

Testing not relevant or not possible due to nature of the product.

Vapour pressure

Testing not relevant or not possible due to nature of the product.

Vapour density

Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°C)

Testing not relevant or not possible due to nature of the product.

Evaporation rate (n-butylacetate = 100)

Data on fire and explosion hazards

Flash point (°C)

Testing not relevant or not possible due to nature of the product.

Ignition (°C)

Testing not relevant or not possible due to nature of the product.

Auto flammability (°C)

Testing not relevant or not possible due to nature of the product.

Explosion limits (% v/v)

Testing not relevant or not possible due to nature of the product.

Explosive properties

Testing not relevant or not possible due to nature of the product.

Oxidizing properties

Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water

Testing not relevant or not possible due to nature of the product.

n-octanol/water coefficient

Testing not relevant or not possible due to nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	
Species	Rat
Route of exposure	
Test	LD50
Result	>2000 mg/kg
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	
Species	Rat
Route of exposure	Dermal
Test	LD50
Result	>2000 mg/kg mg/L
Other information	

Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	
Result	>4000 mg/kg, 4,5 ml/kg mg/kg
Other information	

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	OECD 476
Species	
Conclusion	Adverse effect observed
Other information	
Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	OECD 471
Species	
Conclusion	Adverse effect observed
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	OECD 471
Species	
Conclusion	Adverse effect observed
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	OECD 476
Species	
Conclusion	Adverse effect observed
Other information	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

Test method	OECD 471
Species	
Conclusion	Adverse effect observed
Other information	

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

Other information

bis-[4-(2,3-epoxipropoxi)phenyl]propane has been classified by IARC as a group 3 carcinogen.
Titanium dioxide has been classified by IARC as a group 2B carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	9,4 mg/L
Other information	
Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	1,5 mg/L
Other information	

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	2,7 mg/L
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	1,8 mg/L
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	2,55 mg/L
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	2,54 mg/L
Other information	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Test method	
Species	Daphnia

Compartment	
Duration	48 hours
Test	
Result	7,2 mg/L
Other information	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	
Result	>100 mg/L
Other information	
Product/substance	oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	IC50
Result	843,75 mg/L
Other information	
Product/substance	benzyl alcohol
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	460.00 mg/L
Other information	

12.2. Persistence and degradability

Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Biodegradable	No
Test method	
Result	ikke bionedbrydelig

Product/substance	benzyl alcohol
Biodegradable	Yes
Test method	OECD 301 A
Result	95-97 %

12.3. Bioaccumulative potential

Product/substance	bis-[4-(2,3-epoxipropoxi)phenyl]propane
Test method	
Potential bioaccumulation	No data available
LogPow	3,242 (25°C)
BCF	31
Other information	
Product/substance	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Test method	
Potential bioaccumulation	No
LogPow	2,7 - 3,6
BCF	150
Other information	
Product/substance	benzyl alcohol
Test method	
Potential bioaccumulation	No
LogPow	1.1
BCF	1
Other information	

12.4. Mobility in soil

bis-[4-(2,3-epoxipropoxi)phenyl]propane
LogKoc = 445.00, Low mobility potential.
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
LogKoc = 4460.00, Low mobility potential.
benzyl alcohol
LogKoc = 5.00, Low mobility potential.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.
This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.
HP 13 – Sensitising
Avoid discharge to lakes, streams, sewers, etc.
Dispose of contents/container to an approved waste disposal plant.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

08 04 09*	Waste adhesives and sealants containing organic solvents or other dangerous substances
08 04 15*	Aqueous liquid waste containing adhesives or sealants containing organic solvents or other dangerous substances
17 09 03*	Other construction and demolition wastes (including mixed wastes) containing dangerous substances

Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 - 14.4

This product is within scope of the regulations of transport of dangerous goods.
These substances when carried in single or combination packaging's containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR/IMDG/IATA provided the packaging's meet the general provisions of 4.1.1.1, 4.1.1.2, 4.1.1.4 - 4.1.1.8 (ADR, IMDG) / 5.0.2.4.1, 5.0.2.6.1.1, 5.0.2.8 (IATA)

ADR/RID

UN- or ID number	UN proper shipping name	Labels	Packing group	Tunnel restriction code
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(liquid epoxy harpics, aliphatic glycidyl etherlyc)	9	III	3 (-)

IMDG

UN- or ID number	UN proper shipping name	Labels	Packing group	EmS
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(liquid epoxy harpics, aliphatic glycidyl etherlyc)	9	III	F-A, S-F

"MARINE POLLUTANT"

No

IATA

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Restrictions for application

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

Use of this product requires dedicated training in work with polyurethane and epoxy products.

SEVESO - Categories / dangerous substances

Not applicable

Additional information

Tactile warning.

If this product is sold in retail, it must be delivered with child-resistant fastening.

Sources

The Management of Health and Safety at Work Regulations 1999

The Health and Safety at Work etc. Act 1974 Regulations 2013.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302, Harmful if swallowed.

H315, Causes skin irritation.

H317, May cause an allergic skin reaction.

H319, Causes serious eye irritation.

H332, Harmful if inhaled.

H411, Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit.
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVCB = Complex hydrocarbon substance
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)
The classification of the substance/mixture in regard of skin corrosion and serious eye damage is based on the pH-criterion given by Regulation (EC) No. 1272/2008 (CLP)

The safety data sheet is validated by

Reyhane R. Kanafi

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: GB-en

SAFETY DATA SHEET

mira 3650 multipox hærder komp.B

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name

mira 3650 multipox hærder komp.B

Unique formula identifier (UFI)

TJ3A-T0XW-A005-K6EN

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture

No special

Uses advised against

No special

1.3. Details of the supplier of the safety data sheet

Company and address

mira byggeprodukter a/s
Egegårdsvej 2
4621 Gadstrup
+45 46 19 19 46
www.mira.eu.com

Contact person

-

E-mail

info@mira.eu.com

SDS date

21-09-2021

SDS Version

5.0

Date of previous version

2021-09-16 (4.0)

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).
See section 4 “First aid measures”.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Acute Tox. 4; H302, Harmful if swallowed.

Skin Corr. 1B; H314, Causes severe skin burns and eye damage.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Dam. 1; H318, Causes serious eye damage.

Acute Tox. 4; H332, Harmful if inhaled.

Aquatic Chronic 2; H411, Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram(s)

Signal word

Danger

Hazard statement(s)

Harmful if swallowed or if inhaled. (H302+H332)
Toxic to aquatic life with long lasting effects. (H411)
Causes severe skin burns and eye damage. (H314)
May cause an allergic skin reaction. (H317)

Safety statement(s)

General

If medical advice is needed, have product container or label at hand. (P101)
Keep out of reach of children. (P102)

Prevention

Do not breathe vapour. (P260)
Avoid release to the environment. (P273)
Wear protective gloves/protective clothing/eye protection/face protection. (P280)

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. (P301+P330+P331)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
Immediately call a POISON CENTER / doctor. (P310)

Storage

-

Disposal

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

▼Hazardous substances

3-aminomethyl-3,5,5-trimethylcyclohexylamine
benzyl alcohol
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
Phenol, styrenated
m-phenylenebis(methylamine)
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

2.3. Other hazards

Additional labelling

Not applicable

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
3-aminomethyl-3,5,5-trimethylcyclohexylamine	CAS No.: 2855-13-2 EC No.: 220-666-8 REACH: 01-2119514687-32 Index No.: 612-067-00-9	25-40%	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 3, H412	

benzyl alcohol	CAS No.: 100-51-6 EC No.: 202-859-9 REACH: Index No.: 603-057-00-5	25-40%	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319	[9]
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine	CAS No.: 38294-64-3 EC No.: 500-101-4 REACH: 01-2119965165-33 Index No.:	15-25%	Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 3, H412	
Phenol, styrenated	CAS No.: 61788-44-1 EC No.: 262-975-0 REACH: 01-2119980970-27 Index No.:	2-8%	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	
m-phenylenebis(methylamine)	CAS No.: 1477-55-0 EC No.: 216-032-5 REACH: 01-2119480150-50 Index No.:	1-5%	Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1B, H317 Eye Dam. 1, H318 Acute Tox. 4, H332 Aquatic Chronic 3, H412 EUH071	
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine	CAS No.: 25513-64-8 EC No.: 247-063-2 REACH: Index No.:	1-3%	Acute Tox. 4, H302 Skin Sens. 1A, H317 Eye Dam. 1, H318 Skin Corr. 1A, H314	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting, unless this is recommended by a doctor. Hold head facing down to prevent vomit returning mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable

4.2. Most important symptoms and effects, both acute and delayed

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.
Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.
Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:
Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Nitrogen oxides (NO_x)
Carbon oxides (CO / CO2).

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.
Avoid inhalation of vapours from spilled material.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 on “Disposal considerations” in regard of handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.
The product should be tested for peroxides before distillation or evaporation and tested for peroxide formation or discarded after 1 year.
Peroxide formation may be present anywhere in the container, including the sides, bottom, exterior and threaded cap. Peroxide formation in ppm concentrations may not be visually observable and must be identified through the use of appropriate testing procedures. If any of the following conditions exist, the material may be explosively unstable and will require stabilization prior to use:
1. Material appears to be degraded and or contaminated.
2. Material appears to be discolored.
3. Deterioration or distortion of storage container.
4. Thermal shock (sunlight).
5. Age of material exceeds recommended storage time.
Avoid direct contact with the product.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

Store in a closed original container in a dry and well-ventilated place.

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No substances are listed in the national list of substances with an occupational exposure limit.

DNEL

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
DNEL	20,1 mg/m³
Route of exposure	Inhalation
Duration	Short term – Systemic effects
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
DNEL	0,526 mg/kg legemsvægt/dag
Route of exposure	Oral

Duration	Long term – Systemic effects
Product/substance	benzyl alcohol
DNEL	450 mg/m3
Route of exposure	Inhalation
Duration	Short term – Systemic effects - Workers
Product/substance	m-phenylenebis(methylamine)
DNEL	0,2 mg/m³
Route of exposure	Inhalation
Duration	Long term – Local effects
Product/substance	m-phenylenebis(methylamine)
DNEL	0,33 mg/kg
Route of exposure	Dermal
Duration	Long term – Systemic effects
Product/substance	m-phenylenebis(methylamine)
DNEL	1,2 mg/m³
Route of exposure	Inhalation
Duration	Long term – Systemic effects

PNEC

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	0,06 mg/l
Route of exposure	Freshwater
Duration of Exposure	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	0,006 mg/l
Route of exposure	Marine water
Duration of Exposure	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	5,784 mg/kg
Route of exposure	Freshwater sediment
Duration of Exposure	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	0578 mg/kg
Route of exposure	Marine water sediment
Duration of Exposure	

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	1,121 mg/kg
Route of exposure	Soil
Duration of Exposure	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
PNEC	3,18 mg/l
Route of exposure	Sewage treatment plant
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,094 mg/l
Route of exposure	Freshwater
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,009 mg/l
Route of exposure	Marine water
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,152 mg/l
Route of exposure	Intermittent release
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	10 mg/l
Route of exposure	Sewage treatment plant
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,43 mg/kg
Route of exposure	Freshwater sediment
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,045 mg/kg
Route of exposure	Soil
Duration of Exposure	
Product/substance	m-phenylenebis(methylamine)
PNEC	0,043 mg/kg
Route of exposure	Marine water sediment

Duration of Exposure

8.2. Exposure controls

Control is unnecessary if the product is used as intended.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
In case of insufficient ventilation, wear respiratory protection. Filter type: A / AX. Respiratory protection must comply with one of the following standards: EN 136/140/145			

Skin protection

Recommended	Type/Category	Standards
Remove soiled clothing and wash skin thoroughly with soap and water when work is complete.		

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	-	-	EN374-2	

Eye protection

Type	Standards	
Wear safety goggles if there is a risk of splashes in the eyes. Eye protection must comply with EN 166.	EN 166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form

Paste

Colour

Testing not relevant or not possible due to nature of the product.

Odour

Testing not relevant or not possible due to nature of the product.

Odour threshold (ppm)

Testing not relevant or not possible due to nature of the product.

pH

Testing not relevant or not possible due to nature of the product.

Density (g/cm³)

Testing not relevant or not possible due to nature of the product.

Viscosity

Testing not relevant or not possible due to nature of the product.

Phase changes

Melting point (°C)

Testing not relevant or not possible due to nature of the product.

Boiling point (°C)

Testing not relevant or not possible due to nature of the product.

Vapour pressure

Testing not relevant or not possible due to nature of the product.

Vapour density

Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°C)

Testing not relevant or not possible due to nature of the product.

Evaporation rate (n-butylacetate = 100)

Data on fire and explosion hazards

Flash point (°C)

Testing not relevant or not possible due to nature of the product.

Ignition (°C)

Testing not relevant or not possible due to nature of the product.

Auto flammability (°C)

Testing not relevant or not possible due to nature of the product.

Explosion limits (% v/v)

Testing not relevant or not possible due to nature of the product.

Explosive properties

Testing not relevant or not possible due to nature of the product.

Oxidizing properties

Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water

Testing not relevant or not possible due to nature of the product.

n-octanol/water coefficient

Testing not relevant or not possible due to nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed.

Harmful if inhaled.

Skin corrosion/irritation

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Rabbit
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	
Product/substance	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	
Product/substance	Phenol, styrenated
Test method	OECD 404
Species	Rabbit
Duration	No data available.
Result	Adverse effect observed (Irritating)

Other information	
Product/substance	m-phenylenebis(methylamine)
Test method	
Species	Rat
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Species	Rabbit
Duration	No data available.
Result	Adverse effect observed (Highly corrosive)
Other information	

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Product/substance	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	
Duration	No data available.
Result	Adverse effect observed (Causes serious eye damage)
Other information	
Product/substance	Phenol, styrenated
Test method	OECD 405 Acute Eye Irritation/Corrosion
Species	Rabbit
Duration	24 h
Result	No adverse effect observed (Not irritating)
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	OECD 405 Acute Eye Irritation/Corrosion
Species	Rabbit
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	

Causes severe skin burns and eye damage.
Causes serious eye damage.

Respiratory sensitisation

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	OECD 406
Species	Guinea pig
Result	Adverse effect observed (sensitising)
Other information	
Product/substance	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	
Result	Adverse effect observed (sensitising)
Other information	
Product/substance	m-phenylenebis(methylamine)
Test method	
Species	
Result	Adverse effect observed (sensitising)
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	OECD 406
Species	Guinea pig
Result	Adverse effect observed (sensitising)
Other information	

Skin sensitisation

Product/substance	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	
Result	Adverse effect observed (sensitising)
Other information	

Germ cell mutagenicity

Product/substance	Phenol, styrenated
Test method	OECD 471
Species	salmonella typhimurium
Conclusion	Adverse effect observed
Other information	

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

Other information

No special

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	37 mg/L
Other information	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	110 mg/L
Other information	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50

Result	23 mg/L
Other information	
Product/substance	benzyl alcohol
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	460.00 mg/L
Other information	
Product/substance	Phenol, styrenated
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	> 1 - 10 mg/L
Other information	
Product/substance	Phenol, styrenated
Test method	
Species	Daphnia
Compartment	
Duration	3 hours
Test	EC50
Result	362 mg/L
Other information	
Product/substance	m-phenylenebis(methylamine)
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	87,6 mg/L
Other information	
Product/substance	m-phenylenebis(methylamine)

Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	15,2 mg/L
Other information	
Product/substance	m-phenylenebis(methylamine)
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	32,1 mg/L
Other information	
Product/substance	m-phenylenebis(methylamine)
Test method	
Species	microorganisms
Compartment	
Duration	No data available.
Test	EC50
Result	>1000 mg/L
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	43,5 mg/L
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Species	Daphnia
Compartment	

Duration	24 h
Test	EC50
Result	31,5 mg/L
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Species	Fish
Compartment	
Duration	48 hours
Test	LC50
Result	174 mg/L
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Species	
Compartment	
Duration	56 days
Test	NOEC
Result	>=1000 mg/kg
Other information	

12.2. Persistence and degradability

Product/substance	benzyl alcohol
Biodegradable	Yes
Test method	OECD 301 A
Result	95-97 %
Product/substance	m-phenylenebis(methylamine)
Biodegradable	No
Test method	OECD 301 B
Result	ikke let bionedbrydelig

12.3. Bioaccumulative potential

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Potential bioaccumulation	No data available

LogPow	0,99 (23°C)
BCF	No data available
Other information	
Product/substance	benzyl alcohol
Test method	
Potential bioaccumulation	No
LogPow	1.1
BCF	1
Other information	
Product/substance	Phenol, styrenated
Test method	
Potential bioaccumulation	No data available
LogPow	> 4 (22 °C)
BCF	14.43
Other information	
Product/substance	2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Test method	
Potential bioaccumulation	No data available
LogPow	-0,3 (25°C)
BCF	No data available
Other information	

12.4. Mobility in soil

3-aminomethyl-3,5,5-trimethylcyclohexylamine
LogKoc = 928.00, Low mobility potential.
benzyl alcohol
LogKoc = 5.00, Low mobility potential.
Phenol, styrenated
LogKoc = 856.10, Low mobility potential.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.
This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.
HP 6 - Acute toxicity

HP 8 – Corrosive
HP 13 – Sensitising
HP 14 – Ecotoxic
Avoid discharge to lakes, streams, sewers, etc.
Dispose of contents/container to an approved waste disposal plant.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

08 04 09*	Waste adhesives and sealants containing organic solvents or other dangerous substances
08 04 15*	Aqueous liquid waste containing adhesives or sealants containing organic solvents or other dangerous substances
17 09 03	Other construction and demolition wastes (including mixed wastes) containing dangerous substances

Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 - 14.4

This product is within scope of the regulations of transport of dangerous goods.

ADR/RID

UN- or ID number	UN proper shipping name	Labels	Packing group	Tunnel restriction code
2735	AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.	8	II	2 (E)

IMDG

UN- or ID number	UN proper shipping name	Labels	Packing group	EmS
2735	AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.	8	II	F-A, S-B

"MARINE POLLUTANT"

Yes

IATA

Not applicable

14.5. Environmental hazards

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Restrictions for application

People under the age of 18 shall not be exposed to this product.

Demands for specific education

No specific requirements

SEVESO - Categories / dangerous substances

E2 - ENVIRONMENTAL HAZARDS, Qualifying quantity (lower-tier): 200 tonnes / (upper-tier): 500 tonnes

Additional information

Tactile warning.

If this product is sold in retail, it must be delivered with child-resistant fastening.

Sources

The Management of Health and Safety at Work Regulations 1999

Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

EUH071, Corrosive to the respiratory tract.

H302, Harmful if swallowed.

H312, Harmful in contact with skin.

H314, Causes severe skin burns and eye damage.

H315, Causes skin irritation.

H317, May cause an allergic skin reaction.

H318, Causes serious eye damage.

H319, Causes serious eye irritation.

H332, Harmful if inhaled.

H411, Toxic to aquatic life with long lasting effects.

H412, Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit.
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVCB = Complex hydrocarbon substance
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)
The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

The safety data sheet is validated by

Reyhane R. Kanafi

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: GB-en