

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

1.1 Product identifier

Trade name: TMGP 4000, 4100 and 4200

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

General use: Carbon epoxy prepreg
for industrial purposes only

1.3 Details of the supplier of the safety data sheet

Company name: AIRTECH EUROPE SARL

Street/POB-No.: Z.I. Haneboesch

Postal Code, city: 4562 Differdange
Luxemburg

WWW: www.airtech.lu

E-mail: sales@airtech.lu

Telephone: +352-582282-1

Telefax: +352-584935

Dept. responsible for information:

Telephone: +352-582282-1, E-mail: sales@airtech.lu

1.4 Emergency telephone number

GIZ-Nord, Germany Telephone: +49 (0)551-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Carc. Cat. 3; R40 Limited evidence of a carcinogenic effect.

Muta. Cat. 3; R68 Possible risk of irreversible effects.

Xi; R36/38 Irritating to eyes and skin.

Sens.; R43 May cause sensitization by skin contact.

N; R51-53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling (67/548/EEC or 1999/45/EC)



Xn

harmful



N

dangerous for the environment

R phrase(s):

R 36/38

Irritating to eyes and skin.

R 40

Limited evidence of a carcinogenic effect.

R 43

May cause sensitization by skin contact.

R 51/53

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 68

Possible risk of irreversible effects.

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S phrase(s):	S 53 S 24 S 28 S 37 S 61	Avoid exposure - obtain special instructions before use. Avoid contact with skin. After contact with skin, wash immediately with plenty of water. Wear suitable gloves. Avoid release to the environment. Refer to special instructions/safety data sheet.
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Special labelling

Text for labelling: Contains Bisphenol-F-epichlorhydrine resin, p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline, Monuron (ISO), epoxy resin. Restricted to professional users

2.3 Other hazards

No risks worthy of mention.

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterization: epoxy resin

Hazardous ingredients:

Ingredient	Designation	Content	Classification
NLP 500-006-8 CAS 28064-14-4	Bisphenol-F-epichlorhydrine resin	< 50 %	EU: Sens.; R43. N; R51-53. Xi; R36/38. CLP: Skin Irrit. 2; H315. Eye Irrit. 2; H319. Skin Sens. 1; H317. Aquatic Chronic 2; H411.
EINECS 225-716-2 CAS 5026-74-4	p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	< 25 %	EU: Xn, N; Muta.Cat.3; R 36/38, 43, 51/53, 68. CLP: Skin Irrit. 2; H315. Eye Irrit. 2; H319. Skin Sens. 1; H317. Muta. 2; H341. Aquatic Chronic 2; H411.
EINECS 201-248-4 CAS 80-08-0	4,4'-Diamino diphenyl sulfone	< 25 %	EU: Xn; R22. CLP: Acute Tox. 4; H302.
NLP 500-033-5 CAS 25068-38-6	Reaction product with Bisphenol A-epichlorhydrin epoxy resin (molecular weight = 700)	< 2 %	EU: Sens.; R43. N; R51-53. Xi; R36/38. CLP: Skin Irrit. 2; H315. Eye Irrit. 2; H319. Skin Sens. 1; H317. Aquatic Chronic 2; H411.
EINECS 205-766-1 CAS 150-68-5	Monuron (ISO)	< 2 %	EU: Xn; R22. Carc. Cat. 3; R40. N; R50-53. CLP: Acute Tox. 4; H302. Carc. 2; H351. Aquatic Acute 1; H400. Aquatic Chronic 1; H410.

SECTION 4: First aid measures
4.1 Description of first aid measures

In case of inhalation:	Remove the casualty into fresh air and keep him calm. In case of breathing difficulties administer oxygen. Immediately get medical attention.
In case of skin contact:	Change contaminated clothing. After contact with skin, wash immediately with soap and plenty of water. Seek medical attention if irritation persists.

- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.
Subsequently consult an ophthalmologist.
- After swallowing: Rinse mouth immediately and drink plenty of water.
Never give anything by mouth to an unconscious person.
Do not induce vomiting. Immediately get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May cause sensitization by skin contact.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water fog, foam, extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

High power water jet

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: nitrogen oxides (NO_x), sulphur oxides, aldehydes, acids, carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Hazchem-Code: 2Z

Use fine water spray to cool endangered containers.

Use water spray jet to knock down vapours.

Do not allow fire water to penetrate into surface or ground water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid exposure - obtain special instructions before use.

Wear suitable protective clothing.

Avoid contact with skin, eyes, and clothing.

6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains.

6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Final cleaning.

Do not touch or step on spilled substance.

6.4 Reference to other sections

Refer additionally to chapter 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Obtain special instructions before use.

Avoid contact with skin and eyes.

Provide adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Refrigerated storage is recommended to maintain product quality.
This product may be stored at -18 °C for up to 12 months. Store locked up.

Storage class: 11 = Combustible solids

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Occupational exposure controls

Respiratory protection: Provide adequate ventilation.
Processing, e.g. by cutting, sawing or grinding, can produce particles and dust.
Wear a dust mask, in case of excessive dust.
Recommendation: Particulates filter P3 according to EN 143.

Hand protection: Protective gloves according to EN 374.
Glove material: Neoprene or rubber
Breakthrough time: >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:
Avoid exposure - obtain special instructions before use. Have eye wash bottle or eye rinse ready at work place.
Wash hands before breaks and after work. When using do not eat or drink.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Physical state: Carbon fabric impregnated with viscous blue paste
Colour: blue

Odour: characteristic

Odour threshold: no data available

pH value: no data available

Melting point/freezing point: no data available

Initial boiling point and boiling range: no data available

Flash point/flash point range: Decomposes before flashing.

Evaporation rate: no data available

Flammability: no data available

Explosive properties: no data available

Explosion limits: no data available

Vapour pressure: no data available

Vapour density: no data available

Density: no data available

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Water solubility:	practically insoluble
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature:	no data available
Thermal decomposition:	no data available
Viscosity, dynamic:	no data available
Explosive properties:	no data available
Oxidizing characteristics:	no data available

9.2 Other information

Additional information: no data available

SECTION 10: Stability and reactivity**10.1 Reactivity**

refer to 10.3

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

Keep away from heat. Exothermal decomposition with formation of: toxic gases.

10.5 Incompatible materials

Strong oxidizing agents, strong Lewis acids or mineral acids

10.6 Hazardous decomposition productsIn case of fire may be liberated: nitrogen oxides (NO_x), sulphur oxides, aldehydes, acids, carbon monoxide and carbon dioxide.

Thermal decomposition: no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects: Acute toxicity (oral): Lack of data.
Acute toxicity (dermal): Lack of data.
Acute toxicity (inhalative): Lack of data.
Skin corrosion/irritation: Skin Irrit. 2; H315 = Causes skin irritation.
Eye damage/irritation: Eye Irrit. 2; H319 = Causes serious eye irritation.
Sensitisation to the respiratory tract: Lack of data.
Skin sensitisation: Skin Sens. 1; H317 = May cause an allergic skin reaction.
Germ cell mutagenicity/Genotoxicity: Muta. 2; H341 = Suspected of causing genetic defects.
Carcinogenicity: Carc. 2; H351 = Suspected of causing cancer.
Reproductive toxicity: Lack of data.
Effects on or via lactation: Lack of data.
Specific target organ toxicity (single exposure): Lack of data.
Specific target organ toxicity (repeated exposure): Lack of data.
Aspiration hazard: Lack of data.

Carcinogenic, germ cell mutagen and reproduction effects:
Carc. Cat. 3 - Limited evidence of a carcinogenic effect.
Muta. Cat. 3 - Possible risk of irreversible effects.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

Further details: no data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Waste key number: 08 04 09* = Waste adhesives and sealants containing organic solvents or other dangerous substances.

MFSU = manufacture, formulation, supply and use

* = Evidence for disposal must be provided.

Recommendation: Incinerate as hazardous waste according to applicable local, state, and federal regulations.

Contaminated packaging

Waste key number: 15 01 10 = Packaging containing residues of or contaminated by dangerous substances.

Recommendation: Dispose of waste according to applicable legislation.

SECTION 14: Transport information**14.1 UN number**

ADR/RID, IMDG, IATA: 3077

14.2 UN proper shipping name

ADR/RID, IMDG, IATA: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Bisphenol A epoxy resin and Bisphenol F Epoxy Resin)

14.3 Transport hazard class(es)

ADR/RID: Class 9, Code: M7

IMDG: Class 9, Subrisk -

IATA: Class 9

14.4 Packing group

ADR/RID, IMDG, IATA: III

14.5 Environmental hazards

Marine pollutant: Yes

14.6 Special precautions for user**Land transport (ADR/RID)**

Warning board: ADR/RID: Kemmler-number 90, UN number 3077

Hazard label: 9

Special provisions: 274 335 601

Limited quantities: 5 kg

EQ: E1

Contaminated packaging - Instructions: P002 IBC08 LP02 R001

Contaminated packaging - Special provisions: PP12 B3

Special provisions for packing together: MP10

Portable tanks - Instructions: T1 BK1 BK2

Portable tanks - Special provisions: TP33

Tank coding: SGAV LGBV

Tunnel restriction code: E



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Sea transport (IMDG)

EmS:	F-A, S-F
Special provisions:	274, 335, 966, 967
Limited quantities:	5 kg
EQ:	E1
Contaminated packaging - Instructions:	P002, LP02
Contaminated packaging - Provisions:	PP12
IBC - Instructions:	IBC08
IBC - Provisions:	B3
Tank instructions - IMO:	-
Tank instructions - UN:	T1, BK2, BK2, BK3
Tank instructions - Provisions:	TP33
Stowage and segregation:	Category A. When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
Properties and observations:	-
Segregation group:	none

Air transport (IATA)

Hazard:	Miscellaneous
EQ:	E1
Passenger Ltd.Qty.:	Pack.Instr. Y956 - Max. Net Qty/Pkg. 30 kg G
Passenger:	Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg
Cargo:	Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg
Special Provisioning:	A97 A158 A179
ERG:	9L

14.7 Transport in bulk according to Annex II of MARPOL 73/78 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****National regulations - Great Britain**

Hazchem-Code: 2Z

National regulations - EC member states**Labelling of packaging with <= 125mL content**

R phrase(s):	R 36/38	Irritating to eyes and skin.
	R 40	Limited evidence of a carcinogenic effect.
	R 43	May cause sensitization by skin contact.
	R 51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	R 68	Possible risk of irreversible effects.
S phrase(s):	S 53	Avoid exposure - obtain special instructions before use.
	S 24	Avoid contact with skin.
	S 28	After contact with skin, wash immediately with plenty of water.
	S 37	Wear suitable gloves.
	S 61	Avoid release to the environment. Refer to special instructions/safety data sheet.

National regulations - USA

TSCA: All components listed

Hazard rating systems:



NFPA Hazard Rating:

Health: 2 (Moderate)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 2 (Moderate) - Chronic effects

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	*	2
FLAMMABILITY		1
PHYSICAL HAZARD		0
		X

15.2 Chemical Safety Assessment

no data available

SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

H302 = Harmful if swallowed.

H315 = Causes skin irritation.

H317 = May cause an allergic skin reaction.

H319 = Causes serious eye irritation.

H341 = Suspected of causing genetic defects.

H351 = Suspected of causing cancer.

H400 = Very toxic to aquatic life.

H410 = Very toxic to aquatic life with long lasting effects.

H411 = Toxic to aquatic life with long lasting effects.

Wording of the R-phrases under paragraph 2 and 3:

R 22 = Harmful if swallowed.

R 36/38 = Irritating to eyes and skin.

R 40 = Limited evidence of a carcinogenic effect.

R 43 = May cause sensitization by skin contact.

R 50/53 = Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 51/53 = Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 68 = Possible risk of irreversible effects.

Reason of change:

Changes in section 2: classification, labelling, GHS

General revision

Date of first version:

24/05/2008

Department issuing data sheet

Contact person:

see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

This data sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, and which additional precautions may be necessary. All health and safety information contained in this data sheet should be provided to your employees and customers. It is your responsibility to develop appropriate workplace instructions and training programmes for employees.

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