

MAKROLON SHEETS

Version 1.1

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

1.1 Product identifier

MAKROLON SHEETS

Material number: 84591743

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

Use:

Semi-finished products for the production of plastic articles

1.3 Details of the supplier of the safety data sheet

Exolon Group N.V.
Wakkensesteenweg 47
8700 Tielt

Tel. +32 51 426 200
sales@exolongroup.com

1.4 Emergency telephone number

Tel. +32 51 426 200

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

No classification in accordance with the Regulation (EC) No. 1272/2008.

2.2 Label elements

No labeling necessary according to the Regulation (EC) No. 1272/2008.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

Type of product: Mixture

3.2 Mixtures

Polycarbonate

No dangerous ingredients according to REACH-Regulation (EC) No. 1907/2006.

Candidate List of Substances of Very High Concern for Authorisation

This product contains no substances of very high concern in concentrations where an information obligation applies (REACH Regulation (EC) No. 1907/2006, Article 59).

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: No hazards which require special first aid measures.

4.2 Most important symptoms and effects, both acute and delayed

Notes to physician: No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Therapeutic measures: No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: sprayed water jet, Dry chemical, Carbon dioxide (CO₂), Foam

5.2 Special hazards arising from the substance or mixture

Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes.

5.3 Advice for fire-fighters

Firemen must wear self-contained breathing apparatus.

Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Put on protective equipment (see section 8).

6.2 Environment related measures

Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up

Use mechanical handling equipment.

6.4 Reference to other sections

No special precautions required.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

In case of mechanical processing, dust must be removed by effective exhaust ventilation.

In the case of thermal or laser processing of the product, provide for effective extraction at the machines.

Keep away from foodstuffs, drinks and tobacco. Wash hands before breaks and at end of work and use skin-protecting ointment. Change heavily soiled clothing.

7.2 Conditions for safe storage, including any incompatibilities

No special storage conditions required.

Storage class (TRGS 510) : 11: Combustible Solids

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

No information on Exposure Limit Values necessary according to EC directive 2006/121/EG

8.2 Exposure controls**Respiratory protection**

In case of dust formation use respiratory equipment with filter type particle filter P1 according to EN 143.

Hand protection

Suitable materials for safety gloves; EN 374:

Polyvinyl chloride - PVC (≥ 0.5 mm)

Recommendation: contaminated gloves should be disposed of.

Eye protection

Wear eye/face protection.

Skin and body protection

Wear suitable protective clothing.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance:	Sheet	
Colour:	different according to colouration	
Odour:	odourless	
Odour Threshold:	not established	
pH:	not applicable	
Softening point:	150 - 160 °C	
Flash point:	not established	
Evaporation rate:	not established	
Flammability:	not established	
Burning number:	not established	
Vapour pressure:	not applicable	
Vapour density:	not established	
Density:	ca. 1.2 g/cm ³ at 20 °C	DIN 53479
Water solubility:	insoluble	
Surface tension:	not established	
Partition coefficient (n-octanol/water):	not established	
Auto-ignition temperature:	> 450 °C	
Ignition temperature:	> 450 °C	
Decomposition temperature:	≥ 380 °C	
Viscosity, dynamic:	not applicable	
Explosive properties:	not established	
Dust explosion class:	not applicable	

Oxidising properties: not established

9.2 Other information

The indicated values do not necessarily correspond to the product specification. Please refer to the product information sheet or the technical information sheet for specification data.

SECTION 10: Stability and reactivity

10.1 Reactivity

This information is not available.

10.2 Chemical stability

Fumes evolved by overheating during improperly processing or by burning may be injurious to health.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

This information is not available.

10.5 Incompatible materials

This information is not available.

10.6 Hazardous decomposition products

Caused by smouldering and incomplete combustion toxic fumes mainly consisting of CO and CO₂ may be developed.

SECTION 11: Toxicological information

Toxicological studies on the product are not yet available.

11.1 Information on toxicological effects

Acute toxicity, oral

No data available.

Acute toxicity, dermal

No data available.

Acute toxicity, inhalation

No data available.

Primary skin irritation

No data available.

Primary mucosae irritation

No data available.

Sensitisation

No data available.

Subacute, subchronic and prolonged toxicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity/Fertility

No data available.

Reproductive toxicity/Teratogenicity

No data available.

Genotoxicity in vitro

No data available.

Genotoxicity in vivo

No data available.

STOT evaluation – one-time exposure

No data available.

STOT evaluation – repeated exposure

No data available.

Aspiration toxicity

No data available.

Additional information

According to our experience and information the product has no harmful effects on health if properly handled.

SECTION 12: Ecological information

No effects known to be harmful to the environment.

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

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

No data available.

SECTION 13: Disposal considerations

Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

13.1 Waste treatment methods

After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.

The product is suitable for mechanical recycling. After appropriate treatment it can be remelted and reprocessed into new moulded articles. Mechanical recycling is only possible if the material has been

selectively retrieved and carefully segregated according to type.

SECTION 14: Transport information**ADR/RID**

14.1 UN number : Not dangerous goods
14.2 UN proper shipping name : Not dangerous goods
14.3 Transport hazard class(es) : Not dangerous goods
14.4 Packing group : Not dangerous goods
14.5 Environmental hazards : Not dangerous goods

ADN

14.1 UN number : Not dangerous goods
14.2 UN proper shipping name : Not dangerous goods
14.3 Transport hazard class(es) : Not dangerous goods
14.4 Packing group : Not dangerous goods
14.5 Environmental hazards : Not dangerous goods

Dangerous goods classification for inland waterways tanker by request only.

IATA

14.1 UN number : Not dangerous goods
14.2 UN proper shipping name : Not dangerous goods
14.3 Transport hazard class(es) : Not dangerous goods
14.4 Packing group : Not dangerous goods
14.5 Environmental hazards : Not dangerous goods

IMDG

14.1 UN number : Not dangerous goods
14.2 UN proper shipping name : Not dangerous goods
14.3 Transport hazard class(es) : Not dangerous goods
14.4 Packing group : Not dangerous goods
14.5 Marine pollutant : Not dangerous goods

14.6 Special precautions for user

See section 6 - 8.

Additional information : Not dangerous cargo. Keep dry.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Water contaminating class (Germany)**

nw not water endangering
Identification number according to AwSV: 766

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been conducted for this substance / mixture resp. its components.

SECTION 16: Other information

Abbreviations and acronyms

ADN	Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
ATE	Acute Toxic Estimate
AwSv	Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen
BCF	Bioconcentration Factor
CAS	Chemical Abstract Service
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
CMR	Cancerogenic Mutagenic Reprotoxic
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
EC...	Effect Concentration ... %
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LOAEL	Lowest Observable Adverse Effect Level
LC...	Lethal Concentration, ...%
LD...	Lethal Dose, ...%
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEL	No Observed Adverse Effect Level
NOEL/NOEC	No Observed Effect Level/Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire de marchandises Dangereuses
STOT	Specific Target Organ Toxicity
TRGS	Technische Regeln für Gefahrstoffe
vPvB	very Persistent, very Bioaccumulative
WGK	Wassergefährdungsklasse

Further information

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