MAKROLON GF9415 101645

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

1.1 Product identifier

MAKROLON GF9415 101645

Material number: 86697874

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

Use:
Production of moulded plastic articles

1.3 Details of the supplier of the safety data sheet

Covestro (India) Private Limited
Unit No - SB 801
8th Floor,Empire Tower,Cloud Campus
Thane-Belapur Road, Airoli, 400708
NAVI MUMBAI
INDIA

Tel. +91–22-5067 4003
Fax: +91–22-5067 4001
productsafetyapac@covestro.com

1.4 Emergency telephone number

In case of emergency: +91-120-518 8600
Nicer Globe Toll Free Number: 18001213959

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification:
Not a hazardous substance or mixture.

2.2 Label elements

GHS-Labelling
Not a hazardous substance or mixture.

2.3 Other hazards

No information available.

SECTION 3: Composition/information on ingredients

Type of product: Mixture

3.2 Mixtures

Polycarbonate
Hazardous components

C.I. Solvent Yellow 163
Concentration [wt.-%]: >= 0.1 - < 0.25
GHS Classification: Skin Sens. 1B H317 Aquatic Acute 2 H401 Aquatic Chronic 2 H411

Because the substance listed here is permanently incorporated into the polymer matrix, no danger is expected if the product is properly handled.

SECTION 4: First aid measures

4.1 Description of first aid measures

In case of skin contact: CONTACT WITH THE HOT MELT: Cool immediately with plenty of water. Do not remove product crusts which may have formed neither forcibly nor by applying any solvents to the skin involved. To obtain treatment for possible burns, and appropriate skin care, seek medical advice immediately.

The following information refers to the handling of the product at room temperature. In case of skin contact wash affected areas thoroughly with soap and plenty of water.

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, extinguishing powder, Carbon dioxide (CO2), Foam, Dry chemical

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

Granules - slip hazard!

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. Avoid dust formation.

6.4 Reference to other sections

For further disposal measures see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Under recommended processing conditions small amounts of residues of monomers and residual solvent may be emitted. Provided good ventilation and/or local exhaust systems are used, the Workplace Exposure Limit(s) stated in section 8 should not be exceeded.

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

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

7.2 Conditions for safe storage, including any incompatibilities

No special storage conditions required.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

The regulations for the substances listed below must be observed when processing this product, particularly if processing takes place at elevated temperatures. In our experience the provision of effective fresh-air and exhaust ventilation equipment at the points where vapors may be generated will ensure compliance with the tolerance limits quoted below.

Substance	CAS-No.	Basis	Type	Value	Ceiling Limit Value	Remarks
phenol	108-95-2	IN OEL	TWA	5 ppm 19 mg/m3		
phenol	108-95-2	IN OEL				Dermal absorption possible
chlorobenzene	108-90-7	IN OEL	TWA	75 ppm 350 mg/m3		

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)
Contaminated and/or damaged gloves must be changed.

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

Physical state: solid at 20 °C at 1,013 hPa

Appearance:	granular
Colour:	yellow
Odour:	odourless
Odour Threshold:	not established
pH:	not applicable
Softening point:	130 - 160 °C
Boiling point/boiling range:	not established
Flash point:	not established
Evaporation rate:	not established
Flammability:	not established
Burning number:	not established
Upper/lower flammability or explosive limits:	not applicable
Vapour pressure:	not applicable
Relative vapour density:	not established
Density:	ca. 1.2 - 1.4 g/cm³
Bulk density:	600 - 700 kg/m³
Miscibility with water:	not established
Water solubility:	practically insoluble
Surface tension:	not established
Partition coefficient (n−octanol/water):	not established
Auto-ignition temperature:	not applicable
Ignition temperature:	> 450 °C
Decomposition temperature:	>= 380 °C
Heat of combustion:	not established
Viscosity, dynamic:	not applicable
Viscosity, kinematic:	not established
Explosive properties:	not established
Dust explosion class:	not established
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 hazardous reactions observed.

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.

Under recommended processing conditions small amounts of emissions may occur.

The regulations for the substances listed below must be observed when processing this product, particularly if processing takes place at elevated temperatures.

phenol
GHS Classification: Acute Tox. 3 Oral H301 Acute Tox. 3 Inhalative H331 Acute Tox. 3 Dermal H311 Skin Corr. 1B H314 Eye Dam. 1 H318 Muta. 2 H341 STOT RE 2 H373 Aquatic Acute 2 H401 Aquatic Chronic 2 H411

chlorobenzene
GHS Classification: Flam. Liq. 3 H226 Acute Tox. 4 Inhalative H332 Skin Irrit. 2 H315 Aquatic Chronic 2 H411

4-tert-butylphenol
GHS Classification: Skin Irrit. 2 H315 Eye Dam. 1 H318 Repr. 2 H361f Aquatic Chronic 1 H410

bisphenol A; 4,4'-isopropylidenediphenol
GHS Classification: Eye Dam. 1 H318 Skin Sens. 1 H317 Repr. 2 H361 STOT SE 3 H335 Aquatic Acute 2 H401 Aquatic Chronic 2 H411

SECTION 11: Toxicological information

Toxicological studies on the product are not yet available.

11.1 Information on toxicological effects

Acute toxicity, oral
C.I. Solvent Yellow 163
LD50 rat, male/female: > 2,000 mg/kg
Method: OECD Test Guideline 423

Acute toxicity, dermal
C.I. Solvent Yellow 163
LD50 rat, male/female: > 2,000 mg/kg
Method: OECD Test Guideline 402

Acute toxicity, inhalation
C.I. Solvent Yellow 163
Assessment: no data available
No data available, supplier information

Primary skin irritation
C.I. Solvent Yellow 163
Species: rabbit
Result: non-irritant
Classification: No skin irritation
Method: OECD Test Guideline 404

Primary mucosae irritation
C.I. Solvent Yellow 163
Species: rabbit
Result: non-irritant
Classification: No eye irritation
Method: OECD Test Guideline 405

Sensitisation
C.I. Solvent Yellow 163
Skin sensitisation:
Species: Guinea pig
Result: positive
Classification: May cause sensitization by skin contact (Sub cat. 1B)
Method: OECD Test Guideline 406

Sensitization of the respiratory airways
no data available

Subacute, subchronic and prolonged toxicity
C.I. Solvent Yellow 163
NOAEL: 1,000 mg/kg
Application Route: Oral
Species: rat, male/female
Exposure duration: 4 Weeks
Frequency of treatment: daily
Method: OECD Test Guideline 407
Studies of a comparable product.

Carcinogenicity
C.I. Solvent Yellow 163
No data available.

Reproductive toxicity/Fertility
C.I. Solvent Yellow 163
NOAEL - Parents: 1,000 mg/kg
NOAEL – F1: 1,000 mg/kg
Species: rat, male/female
Application Route: Oral
Frequency of treatment: daily
Method: OECD Test Guideline 421

Reproductive toxicity/Developmental Toxicity/Teratogenicity
C.I. Solvent Yellow 163
No data available.

Genotoxicity in vitro
C.I. Solvent Yellow 163
Test type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 471

Test type: Chromosome aberration test in vitro
Test system: Chinese hamster V79 cell line
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 473
Studies of a comparable product.

Test type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster V79 cell line
Metabolic activation: with/without
Result: negative
Method: OECD Test Guideline 476

Genotoxicity in vivo
C.I. Solvent Yellow 163
no data available

STOT evaluation – one-time exposure
C.I. Solvent Yellow 163
Based on available data, the classification criteria are not met.

STOT evaluation – repeated exposure
C.I. Solvent Yellow 163
Based on available data, the classification criteria are not met.

Aspiration toxicity

C.I. Solvent Yellow 163
Based on available data, the classification criteria are not met.

CMR Assessment
C.I. Solvent Yellow 163
Carcinogenicity: No data available.
Mutagenicity: Based on available data, the classification criteria are not met.
Teratogenicity: No data available.
Reproductive toxicity/Fertility: Based on available data, the classification criteria are not met.

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

SECTION 12: Ecological information

Ecotoxicological studies of the product are not available.

Do not allow to escape into waterways, wastewater or soil.

12.1 Toxicity

Acute Fish toxicity
C.I. Solvent Yellow 163
LC50 650 mg/l
Species: Danio rerio (zebra fish)
Exposure duration: 96 h
Method: OECD Test Guideline 203

Chronic Fish toxicity
C.I. Solvent Yellow 163
No data available.

Acute toxicity for daphnia
C.I. Solvent Yellow 163
EC50 > 96 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h

Chronic toxicity to daphnia
C.I. Solvent Yellow 163
no data available

Acute toxicity for algae
C.I. Solvent Yellow 163
EC50 2.97 mg/l
Species: Lemna gibba (gibbous duckweed)
Exposure duration: 7 d
Method: OECD Test Guideline 221

NOEC 0.293 mg/l
Species: Lemna gibba (gibbous duckweed)
Exposure duration: 7 d
Method: OECD Test Guideline 221

Acute bacterial toxicity
C.I. Solvent Yellow 163
IC50 > 960 mg/l
Species: activated sludge
Exposure duration: 3 h
Method: OECD Test Guideline 209

12.2 Persistence and degradability

Biodegradability
C.I. Solvent Yellow 163

Test type: aerobic
Inoculum: activated sludge
Biodegradation: 0 %, 28 d, i.e. not readily degradable
Method: OECD Test Guideline 302 C

Stability in soil
C.I. Solvent Yellow 163
Not expected to adsorb on soil.

Physico-chemical removability
C.I. Solvent Yellow 163
May be separated mechanically in waste water plants.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

Distribution among environmental compartments
C.I. Solvent Yellow 163
see user defined free text

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

The product is practically insoluble in water. In view of its consistency and insolubility in water, no ecological problems are to be expected if the product is properly handled. The product is not readily biodegradable.

SECTION 13: Disposal considerations

Dispose in accordance with applicable international, national and local laws, ordinances and statutes.

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

Land transport India

14.1 UN number or ID 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

IATA

14.1 UN number or ID 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 or ID 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 Maritime transport in bulk according to IMO instruments

Product is not transported by us in bulk.

SECTION 15: Regulatory information

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

SECTION 16: Other information

Full text of the hazard statements of the GHS classification referred to under sections 2, 3 and 10.

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic 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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H361	Suspected of damaging fertility or the unborn child.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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.