

SAFETY DATA SHEET

Prepared in accordance with the Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (OJ of EU no L203 of 26 June 2020)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Rubber granulate

standard PN-EN 14243-2:2019-04, classification into groups:

Group 1 – granules ranging in size from 0.8 mm to 10 mm and powders below 0.8 mm

Group 2 – granules ranging in size from 10 mm to 20 mm

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

Identified uses: SBR granules from recycled tires, raw material for further processing as input.

Uses advised against: Not identified.

1.3 Details of the supplier of the safety data sheet

Supplier:

Recykl Organizacja Odzysku S.A.

Letnia 3, 63-100 Śrem, Poland

Phone: +48 61 281 06 11

E- mail address: recykl@recykl.pl

1.4 Emergency telephone number

Emergency telephone number **in Poland (operating Mo.-Fr. 8:00 – 16:00): +48 61 281 06 11**

Available 24/7 (Poland): 112, 998, 999

Date of compilation: 2024.07.11

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The mixture does not meet the criteria for classification in accordance with the applicable regulations (Regulation 1272/2008 with later amendments).

Harmful effects on human health:

High concentrations of dust or direct contact with the eyes may cause irritation, redness and tearing. Skin contact may cause itching, local redness. Inhalation of dust may cause irritation of the respiratory system, irritation of the mucous membranes of the nose and mouth, coughing.

Environmental effects:

Not hazardous to the environment.

Adverse effects associated with physico-chemical properties:

Not identified.

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2.2 Label elements

Pictogram: Not required

Signal Word: Not required

Hazard Statement: Not required

Precautionary Statement: Not required

Additional label elements:

EUH210 – Safety data sheet available on request.

2.3 Other hazards

This mixture meets neither PBT nor vPvB criteria. It does not contain ingredients that are considered endocrine disruptors according to Art. 57 (f) of REACH Regulation or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at a concentration of 0.1% or higher.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

Product identifier: *Rubber granulate standard PN-EN 14243-2:2019-04, classification into groups:*

Group 1 – granules ranging in size from 0.8 mm to 10 mm and powders below 0.8 mm

Group 2 – granules ranging in size from 10 mm to 20 mm

It does not contain ingredients classified as hazardous in accordance with applicable regulations.

The content of individual polycyclic aromatic hydrocarbons (PAHs): benzo[a]pyrene, benzo[e]pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[j]fluoranthene, benzo[k]fluoranthene, dibenzo[a,h]anthracene ≤ 0.5 mg/kg in relation to the weight of the material with added PAHs.

An explanation of the abbreviations and acronyms used is provided in Section 16 of the safety data sheet.

Technical properties:

Entry	Properties	Requirements	Method
1	2	3	4
1	Appearance	loose granulate with irregular grain shapes, colour black, there may be single inclusions of fibers, metal, other rubber colors	p. 6.6.1
2	Bulk density, kg/m ³	380 ÷ 600	PN-EN 1097-3:2000
3	Volume density, kg/m ³	1100 ÷ 1250	PN-EN 1097-6:2002 /A1:2006
4	Humidity, %	$\leq 0,5$	PN-EN 1097-5:2008
5	Hardness, IRHD	40 ÷ 80	PN-ISO 48:1998/A1:2000 method M

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6	Grain size	a minimum of 85% of the mass should be between the upper and lower limits and the upper limit must not exceed 10%	p. 6.6.2
7	Ash content, %	≤ 18,5	PN-ISO 247:1996
8	Sulfur content, %	1 ÷ 3	PN-C-04244:1975
9	Content of leachable heavy metals, mg/l	≤ 0,03	optical emission spectrometry method (ICP-OES)
10	Content of leachable zinc, mg/l	≤ 0,5	PN-EN 12457-1:2006
11	Content of leachable polycyclic aromatic hydrocarbons (PAH), mg/l	none	high-performance liquid chromatography (HPLC) method with a fluorescence detector
12	Content of mineral and non-metallic impurities, %	≤ 0,02	p. 6.6.3; PB/2/3
	Content of metallic impurities, %	≤ 0,02	p. 6.6.3; PB/2/3
13	Emission of volatile organic compounds (VOC), determined by the time necessary to achieve permissible concentrations of factors harmful to health, days	1*	PN-EN ISO 16000-9:2009

* According to Zarządzenie Ministra Zdrowia i Opieki Społecznej z dnia 12.03.1996 r. w sprawie dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia wydzielanych przez materiały budowlane, urządzenia i elementy wyposażenia w pomieszczeniach przeznaczonych na pobyt ludzi (Monitor Polski Nr 19, poz. 231:1996)

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation:	Remove casualty from exposure site to fresh air, place in reclining or sitting position, keep at rest and protect against heat loss. Call a physician if necessary.
Skin contact:	Take off contaminated clothes and rinse immediately with plenty of water with soap. If necessary, consult a physician.
Eye contact:	Rinse immediately with plenty of lukewarm water for at least 15 min. Remove contact lenses. To avoid cornea damage, don't use jet stream. If irritation persists, seek ophthalmologist's advice.
Ingestion:	If swallowed, don't provoke vomiting. Rinse mouth with water, give the casualty plenty of water to drink (unless unconscious). Provide medical attention immediately.

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- 4.2 Most important symptoms and effects, both acute and delayed
High concentrations of dust or direct contact with the eyes may cause irritation, redness and tearing. Skin contact may cause itching, local redness. Inhalation of dust may cause irritation of the respiratory system, irritation of the mucous membranes of the nose and mouth, coughing.
Direct contact with the eyes or skin of the molten product may cause skin burns and eye damage. Ingestion may cause irritation of the gastrointestinal mucosa.
- 4.3 Indication of any immediate medical attention and special treatment needed
No special requirements, apply symptomatic treatment.
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SECTION 5: FIREFIGHTING MEASURES

- 5.1 Extinguishing media
Suitable extinguishing media: Non-flammable product. Fire in the surroundings should be extinguished with the media suitable for the materials involved in fire.
Unsuitable extinguishing media: Not identified.
- 5.2 Special hazards arising from the substance or mixture
During fire carbon oxides may be emitted.
- 5.3 Advice for firefighters
Containers exposed to fire should be cooled from a safe distance with a diffused stream of water; if possible, remove them from the endangered area. Wear antistatic gas-tight protective suit, self-contained breathing apparatus.
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SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures
Wear protective clothing made of natural fabrics (cotton), safety gloves made of latex, neoprene or rubber (thickness ≥ 0.4 mm, breakthrough time ≥ 480 min) and safety goggles. Remove from the affected area unprotected persons who do not participate in removal of the failure.
- 6.2 Environmental precautions
Protect from releasing to sewage system, surface and ground water, soil.
- 6.3 Methods and materials for containment and cleaning up
Damaged packaging place in replacement packaging. Collect the spilled product mechanically, avoiding raising dust, transfer to closed containers and pass to disposal or after thorough cleaning of impurities for use. Wash contaminated surface with plenty of water.
- 6.4 Reference to other sections
Remove according to the recommendations listed in section 13.
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SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling
It is recommended to take special precautions during work with the mixture in order to avoid contact with eyes and skin. Do not inhale the dust. Do not eat, drink or smoke while handling. Wash hands during intervals and after finishing work. Take off contaminated clothing and wash it before reusing.
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- 7.2 Conditions for safe storage, including any incompatibilities
Store in original, properly labelled, tightly closed containers; in a dry, properly ventilated storage premise. Protect from moisture.
- 7.3 Specific end use(s)
No information about the applications other than those mentioned in subsection 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Controls parameters
No EU control parameters established (IOELV, STEL).
- 8.2 Exposure controls
- 8.2.1 *Appropriate engineering controls*
Provide appropriate general ventilation. Do not breathe dust.
- 8.2.2 *Individual protective measures such as personal protective equipment*
- Respiratory protection: Not required.
- Skin and hands protection: When handling large amounts of product wear protective clothing made of natural fabrics (cotton), safety gloves made of latex, neoprene or rubber (thickness ≥ 0.4 mm, breakthrough time ≥ 480 min).
- Eye/face protection: In industrial conditions, use certified safety goggles in accordance with EN 166.
- Occupational hygiene: General industrial hygiene rules apply. Don't allow exceeding occupational exposure levels. After finishing work remove contaminated clothes. Wash hands and face before work breaks. Wash entire body after finishing work. Do not drink, eat and smoke during work.
- 8.2.3 *Environmental exposure controls*
Prevent from draining to a municipal sewage system and watercourses.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties
- a) Physical state
Solid in the form of loose granules.
- b) Colour
Black.
- c) Odour
Tire rubber odour.
- d) Melting point/freezing point
No data available.
- e) Boiling point or initial boiling point and boiling range
The study is not required as the product is a solid.
- f) Flammability
The mixture is non-flammable.
- g) Lower and upper explosion limit
Not explosive.
- h) Flash point
The study is not required as the flash point applies only to liquids and solids with a low melting point.

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- i) Auto-ignition temperature
The test is not justified because the mixture does not burn spontaneously.
- j) Decomposition temperature
No data available.
- k) pH
Not applicable.
- l) Kinematic viscosity
According to point 2 of Annex XI to the REACH Regulation, the study does not need to be conducted because the mixture is a solid. Viscosity is a property of liquid substances
- m) Solubility
Not soluble in water. Soluble in organic solvents.
- n) Partition coefficient: n-octanol/water (log value)
Not applicable for solids.
- o) Vapour pressure
Negligible.
- p) Density and/or relative density
Bulk density: 380 - 600 kg/m³.
- q) Relative vapour density
The study is not required as the product is a solid.
- r) Particle characteristics
Granule size 0.8 - 20 mm.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

- a) Explosives: Not applicable.
- b) Flammable gases: Not applicable
- c) Aerosols: Not applicable
- d) Oxidising gases: Not applicable
- e) Gases under pressure: Not applicable
- f) Flammable liquids: Not applicable
- g) Flammable solids: Not applicable
- h) Self-reactive substances and mixtures: Not applicable
- i) Pyrophoric liquids: Not applicable
- j) Pyrophoric solids: Not applicable
- k) Self-heating substances and mixtures: Not applicable
- l) Substances and mixtures, which emit flammable gases in contact with water: Not applicable
- m) Oxidising liquids: Not applicable
- n) Oxidising solids: Not applicable
- o) Organic peroxides: Not applicable
- p) Corrosive to metals: Not applicable
- q) Desensitised explosive: Not applicable

9.2.2 Other safety characteristics

- a) mechanical sensitivity: No data available
- b) self-accelerating polymerisation temperature: Not applicable
- c) formation of explosible dust/air mixtures: Not applicable
- d) acid/alkaline reserve: No data available
- e) evaporation rate: No data available
- f) miscibility: not miscible with water.
- g) conductivity: No data available
- h) corrosiveness: Not applicable
- i) gas group: Not applicable
- j) redox potential: No data available
- k) radical formation potential: No data available
- l) photocatalytic properties: No data available

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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No reactivity if stored and used as intended.

10.2 Chemical stability

Stable in standard conditions of storage and use.

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

Ignition sources, open fire.

10.5 Incompatible materials

Not known.

10.6 Hazardous decomposition products

Not known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity:

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

Skin corrosion/irritation:

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

Serious eye damage/irritation:

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

Respiratory or skin sensitisation:

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

Germ cell mutagenicity:

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

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.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

It does not contain ingredients which are considered endocrine disruptors according to Art. 57 (f) of REACH or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at a concentration of 0.1% or higher.

11.2.2 Other information

No data.

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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

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

12.2 Persistence and degradability

The product is not biodegradable.

12.3 Bioaccumulative potential

Partition coefficient octanol/water: (K_{ow}): No data available.

Bioconcentration factor (BCF): No data available.

12.4 Mobility in soil

Not applicable – product insoluble in water.

12.5 Results of PBT and vPvB assessment

Substances contained in the mixture do not meet the PBT and vPvB criteria.

12.6 Endocrine disrupting properties

The mixture does not contain ingredients that are considered endocrine disruptors according to Art. 57 (f) of REACH Regulation or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at a concentration of 0.1% or higher.

12.7 Other adverse effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Do not dispose together with municipal waste, do not introduce into the sewage system. Do not allow contamination of ground and surface waters.

Hazardous waste*:

Not applicable

* COMMISSION REGULATION (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives

Used packaging (after thorough emptying) should be recycled.

Special precautions:

No special recommendations.

SECTION 14: TRANSPORT INFORMATION

ADR/RID, IMDG, IATA

14.1 UN number or ID number

Not applicable.

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- 14.2 UN proper shipping name
Not applicable.
- 14.3 Transport hazard class(es)
Not applicable.
- 14.4 Packing group
Not applicable.
- 14.5 Environmental hazards
The mixture is not hazardous to the environment according to the UN Model Regulations.
- 14.6 Special precautions for user
No special precautions.
- 14.7 Maritime transport in bulk according to IMO instruments
Not applicable.

SECTION 15: REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ EU L396 of December 30 2006 with later amendments);
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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ EU L353 of December, 31 2008, with later amendments ATP 1-18).
- 15.2 Chemical safety assessment
Supplier has not assessed the chemical safety of the mixture.

SECTION 16: OTHER INFORMATION

The information contained in this safety data sheet, derived from the data sheet provided by the manufacturer, has been supplemented and verified at the Łukasiewicz - Industrial Chemistry Institute in Warsaw.

The information contained in this safety data sheet describes the product exclusively from the safety requirements perspective. The user is responsible for setting up the conditions for safe use of the product and bears a sole responsibility for the consequences of its incorrect use.

Other provisions of law:

Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (PIC) with later amendments - none of the ingredients are listed

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer - none of the ingredients are listed

Regulation (EU) 2019/1021 on persistent organic pollutants with later amendments - none of the ingredients are listed

Authorisation List (REACH, Annex XIV)/SVHC-Candidate List - none of the ingredients are listed

Substances restricted (REACH, Annex XVII) - none of the ingredients are listed

Regulation (EC) No 273/2004 on drug precursors with later amendments – none of the ingredients are listed

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REGULATION (EU) 2019/1148 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on the marketing and use of explosives precursors, amending Regulation (EC) No 1907/2006 and repealing Regulation (EU) No 98/2013 (OJ L 186, 11.7.2019, p. 1–20) - none of the ingredients are listed
Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances – not applicable

Abbreviations:

vPvB	very Persistent very Bioaccumulative.
PBT	Persistent, Bioaccumulative, Toxic.
LD ₅₀	Lethal dose, median dose , where 50 % of test subject dies.
LC ₅₀	Lethal concentration, median concentration where 50 % of test subjects dies.
EC ₅₀	The effective concentration of substance that causes 50% of the maximum response.
DNEL	Derived No-Effect Level.
PNEC	Predicted No Effect Concentration.
BCF	Biological Concentration Factor.
ADR	Agreement on Dangerous Goods by Road.
RID	Regulations Concerning the International Transport of Dangerous Goods by Rail.
IMDG	International Maritime Dangerous Goods Code.
IATA	International Air Transport Association.
IMO	International Maritime Organization.
CAS number	number assigned to a chemical substance in <i>Chemical Abstracts Service</i> Registry.
EC number	seven-digit number, an identifier of substances commercially available within the European Union listed in EC Inventory (EINECS – <i>European Inventory of Existing Chemical Substances</i> , ELINCS - <i>European List of Notified Chemical Substances</i> or „ <i>No-longer polymers</i> " list).
UN number	United Nations number - the four-digit identification number of the UN Dangerous Goods list, derived from the UN Model Regulations, to which the individual material, mixture or article is classified.

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