



SAFETY DATA SHEET

GommAmica® Buffing

Section 1: identification of the substance/mixture and of the company / undertaking

1.1. Product identifier

Mixture identification: rubber granulate obtained from the treatment of end-of-life-tires (PFU), composed of vulcanized rubber elastomer and with a particle length size range of 0.8 – 1.5 mm.

Trade name: GOMMAMICA ® BUFFING

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

Recommended uses: infill in artificial turf and equestrian fields, anti-trauma flooring, additive for bitominous conglomerates and bitumens, component of outdoor floors, component of products for automotive sector, component of products for footwear sector, component of products for gardening sector, component of products for sports sector, component of building products, manufacture of various types of products.

Uses advised against: rubber granulate is specifically disigned for the uses reccomended by this safety data sheet and it contains substances that may be incompatible with other uses.

Uses not specifically mentioned in this safety data sheet are not recommended.

1.3. Details of the supplier of the safety data sheet

Supplier:

Elastrade s.r.l. Via dei Termini 18/A 24040 Osio Sopra (BG) - Italy

E-mail for safety data sheet: info@gommamica.it

1.4. Emergency telephone number

Ospedale Niguarda Ca' Granda Piazza ospedale Maggiore 3, 20162 Milano - Italia +39.02.66.10.10.29 (24 ore su 24)

Section 2: hazards identification

2.1. Classification of the substance or mixture

The mixture does not meet the criteria for classification in accordance with Regulation (EC) n. 1272/2008.

A safety data sheet is provided on request because, in the mixture, there could be substances for which Union workplace exposure limits have been assigned and substances that are dangerous for human health in concentration greater than 1% by weight.

2.2. Label elements

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).



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Hazard pictograms: n.a. **Hazard statements:** n.a.

Precautionary statements: n.a.

Special Provisions: n.a.

2.3. Other hazards

Sustances vPvB: none in concentration greater than 0.1% Substances PBT: none in concentration greater than 0.1%

Other Hazards:

Based on the criteria established by Regulation (EC) n. 1272/2008, this mixture is not classified dangerous to health.

Based on the criteria established by Regulation (EC) n. 1272/2008, this mixture is not classified dangerous to environment.

Based on the criteria established by Regulation (EC) n. 1272/2008, this mixture is not classified dangerous with physical and chemical hazards.

If burned it can generate toxic fumes.

Section 3: composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Hazardous components accordig to Reg. (CE) n. 1272/2008 and components with a concentration of ≥1% and for which Union workplace exposure limits have been assigned.

Q.ty	Name	Identification number		Classification according to Reg. (CE) n. 1272/2008
≥ 25% - ≤ 35%	Carbon black*	CAS: EC:	1333-86-4 215-609-9	Not classified
	Distillates (petroleum), solvent-dewaxed heavy paraffinic	CAS: EC:	64742-65-0 265-169-7	H350 cat. 1B (Note L**)
	Distillates (petroleum), hydrotreated heavy paraffinic	CAS: EC:	64742-54-7 265-157-1	H350 cat. 1B (Note L**)
≥ 2.5% - ≤ 4%	Extracts (petroleum), solvent-refined heavy paraffinic distillate solvent	CAS: EC:	68783-04-0 272-180-0	H350 cat. 1B (Note L**)
	Distillates (petroleum), solvent-refined heavy paraffinic	CAS: EC:	64741-88-4 265-090-8	H350 cat. 1B (Note L**)
	Distillates (petroleum), hydrotreated heavy naphthenic	CAS: EC:	64742-52-5 265-155-0	H350 cat. 1B (Note L**)
≥ 1.5% - ≤ 2.5%	Sulfur	CAS: EC:	7704-34-9 231-722-6	H315
≥ 1% - ≤ 2.0%	Zinc oxide	CAS: EC:	1314-13-2 215-222-5	H400 H410
≥ 0.5% - ≤ 2%	Silicon dioxide (Silica)*	CAS: EC:	7631-86-9 231-545-4	Not classified





≥ 0.9% -	Zina aulahida*	CAS:	1314-98-3	Not alongified
≤ 1.1%	Zinc sulphide*	EC:	215-251-3	Not classified

^{*} substances that are not classified as dangerous according to Reg. (CE) n. 1272/2008 but for which Union workplace exposure limits have been assigned.

Full text of hazard statements mentioned in this section, can be find in section 16.

Section 4: first aid measures

4.1. Desciption of first aid measures

Oral and eye contact are to be considered only through indirect ways, following a skin contact with the mixture.

In case of skin contact: mild irritations may occur in predisposed individuals; wash immediately with plenty of running water and eventually wash the areas of the body that have come into contact with the mixture. If irritation persists, consult a doctor.

In case of eye contact: wash immediately with plenty of running water, do not rub and consult a doctor. Eventually, remove contact lenses.

In case of ingestion: do not cause vomit, wash mouth with water and, in case of nausea, contact the poison control center.

In case of inhalation: exposure to high concentrations of combustion fumes and/or dust can cause breathing difficulties; move the individual to a well ventilated place. In case of nausea, contact a doctor.

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

The main effects that can occur are:

- Skin contact effects: irritation;
- Eye contact effects: foreign body sensation, redness and tearing;
- Ingestion effects: illness, nausea, vomit;
- **Inhalation effects:** illness and breathig difficulties in case of high concentration of fine powders or combustion fumes.

Chronic effects data are not available.

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

In case of illness, in case of exposure to combustion fumes, in case of exposition to combustion fumes, in case of prolonged exposition to high concentrations of respirable fraction in non-ventilated environments and with symptoms of asphyxiation, in case of skin irritation after a direct or prolunged contact and in case of ingestion, consult immediately a doctor (if it is possible, show this safety data sheet).

Section 5: firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: carbon dioxide (CO₂), polyvalent chemical powder, high expansion foam for indoor environments

Unsuitable extinguishing media: none particularly.

5.2. Special hazards arising from the substance or mixture

Do not inhale the gases produced by the explosion and combustion.

Combustion produces heavy smoke that irritates the respiratory tract and eyes.

^{**} Note L Annex 6 Reg. (CE) 1272/2008: "The classification as carcinogen need not apply if it can be shown tat the substance contain less than 3% DMSO extract as measured by IF 346 "Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method"" Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.



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In case of combustion, toxic fumes containing sulfur oxide and dioxins.

5.3. Advice for firefighters

Prevent surface water and groundwater from water of fire extinguishers. Wear complete equipment and gas masks with self-contained breathing apparatus.

Section 6: accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No particular risk due to accidental dispersion are expected.

For those who do not intervene directly: wear personal protective equipment, goggles, gloves, protective clothing and filter mask (at least FFP1). Move people to safe place. Consult protective measures in sections 7 and 8.

For those who intervene directly: wear personal protective equipment, goggles, gloves, protective clothing and filter mask (at least FFP1). Move people to safe place. Consult protective measures in sections 7 and 8.

6.2. Environmental precautions

Do not disperse in the environmental matrices.

Avoid dispersal of dust in the atmosphere.

Avoid sources of ignition.

6.3. Methods and material for containment and cleaning up

For containment: if bulk material is used, adopt suitable containment measures (e.g. containment curb). Avoid the production of dust.

For decontaminatio: use vacuum cleaners for removal.

6.4. Reference to other sections

See sections 8 and 13.

Section 7: handling and storage

7.1. Precautions for safe handling

Avoid eye and skin contact.

Avoid excessive dust formation and inhalation of dust.

Avoid product manipulation near ignition sources and free flame.

See section 8 for personal protective equipment.

Advice on general occupational hygiene: use good cleaning practices during storage, transfer and handling. In any case, wash hands after the product handling. Do not eat or drink at work, remove work cloting and protective equipment before enter in the relaxation areas.

7.2. Conditions for safe storage, including any incompatibilities

Store the mixture in its original, intact and labeled packaging, in adequately ventilated place and away from ignition sources.

Keep away from food, drink and feed.

Incompatible materials: none in particular.

7.3. Specific end use(s)

Raccomandations in this section (sub-sections 7.1 and 7.2) refer only to the recommended uses identified in sub-section 1.2.

Different uses from those indicated are not controlled and are not subject of this document.

Section 8: exposure controls/personal protection



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8.1. Control parameters

Carbon Black (CAS 1333-86-4)

Tipo OEL: ACGIH – TWA(8h): 3 mg/m³ Note: A3, bronchitis

Ossido di zinco (CAS 1314-13-2)

Tipo OEL: ACGIH - TWA(8h): 2 mg/m3 - STEL: 10 mg/m3 - Note: (R) - Metal fume fever

1,2-Dicloroetano (CAS 107-06-2)

Tipo OEL: UE TWA(8h): 8,2 mg/m³, 2 ppm (Substantial contribution to the total body burden via dermal exposure possible Bold-type: Binding Occupational Exposure Limit Value (BOELV))

Tipo OEL: ACGIH - TWA(8h): 10 ppm - Note: A4, liver dam, nausea

1,2 Dicloropropano (CAS 78-87-5)

Tipo OEL: ACGIH - TWA(8h): 10 ppm - Note DSEN, A4; MW 112.99, URT irr, body weight eff

2-(2-Butossietossi)etanolo (CAS 112-34-5)

Tipo OEL: UE TWA (8h): 10 ppm, 67,5 mg/m³ – STEL: 15 ppm, 101,2 mg/m³ (15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV))

Tipo OEL: ACGIH - TWA (8h): 10 ppm(IFV) - MW: 162.23; Hematologic, liver and kidney eff

Tipo OEL: Italia: TWA (8h): 10 ppm, 67,5 mg/m³ – STEL: 15 ppm, 101,2 mg/m³

2,6-di-tert-butil-p-cresolo (CAS 128-37-0)

Tipo OEL: ACGIH - TWA(8h): 2 mg/m³(IFV) Note: A4 - MW: 220.34; Urt irr

4,4'-isopropiledendifenolo (CAS 80-05-7)

Tipo OEL: UE: TWA (8h): 2 mg/m³ (Inhalable fraction Bold-type: Indicative Occupational Exposure Limit Value (IOELV))

Tipo OEL: Italia: TWA (8h): 10 mg/m³ (Inhalable fraction)

4-metilpentan-2-one (CAS 108-10-1)

Tipo OEL: UE TWA (8h): 20 ppm, 83 mg/m³ – STEL: 50 ppm, 208 mg/m³ (15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV))

Tipo OEL: ACGIH – TWA (8h): 20 ppm; STEL: 75 ppm; Note: A3, BEI – MW: 100.16; urt irr, dizziness, headache

Tipo OEL: Italia: TWA (8h): 20 ppm, 83 mg/m³ – STEL: 50 ppm, 208 mg/m³

Acetonitrile (CAS 75-05-8)

Tipo OEL: UE TWA (8h): 40 ppm, 70 mg/m³

Tipo OEL: ACGIH - TWA (8h): 20 ppm; Note: skin, A4; MW: 41.05 - Irt irr

Tipo OEL: Italia: TWA (8h): 20 ppm, 35 mg/m³

Acido stearico (CAS 57-11-4)

Tipo OEL: ACGIH – TWA (8h): 10 mg/m³(I), 3 mg/m³(R); Note: A4; MW: varies; Irt irr

Alluminio in polvere (CAS 7429-90-5)

Tipo OEL: ACGIH – TWA (8h): 1 mg/m³(R); Note: A4; MW: 26.98; pneumoconiosis, Irt irr; MW: varies; neurotoxicity

Antimonio (CAS 7440-36-0)

Tipo OEL: ACGIH - TWA (8h): 0.5 mg/m³; MW: 121.75; skin and urt irr

Arsenico (CAS 7440-38-2)

Tipo OEL: ACGIH - TWA (8h): 0.01 mg/m³; Note: A1, BEI; MW: 74.92; lung cancer

Bario (CAS 7440-39-3)

Tipo OEL: UE TWA (8h): 0.5 mg/m³

Tipo OEL: ACGIH – TWA (8h): 0,5 mg/m³; Note: A4; MW: 137.30; eye, skin and gi irr, muscular stimulation

Tipo OEL: Italia: TWA (8h): 0,5 mg/m³

Benzene (CAS 71-43-2)

Tipo OEL: UE TWA (8h): 1 ppm, 3.25 mg/m³ (Substantial contribution to the total body burden via dermal exposure possible Bold-type: Binding Occupational Exposure Limit Value (BOELV))

Tipo OEL: ACGIH - TWA (8h): 0.5 ppm; STEL: 2.5 ppm; Note: skin, A1, BEI; leukemia

Tipo OEL: Italia: TWA (8h): 1 ppm, 3.25 mg/m³





Benzo(a)antracene (CAS 56-55-3)

Tipo OEL: ACGIH – TWA (8h): - (L); Note: A2, BEIP; MW: 228.30; skin cancer

Benzo(a)pirene (CAS 50-32-8)

Tipo OEL: ACGIH - TWA (8h): - (L); Note: A2, BEIP; MW: 252.30; cancer

Benzo(e)acefenantrilene (CAS 205-99-2)

Tipo OEL: ACGIH - TWA (8h): - (L); Note: A2, BEIP; MW: 252.30; cancer

Berillio (CAS 7440-41-7)

Tipo OEL: ACGIH – TWA (8h): 0.00005 mg/m³(I); Note: A1, skin, DSEN, RSEN; MW: 9.01; beryllium sens, chronic beryllium disease

Bis(2-etilesil)ftalato (CAS 117-81-7)

Tipo OEL: ACGIH - TWA (8h): (5 mg/m³); Note: A3; MW: 390.54; (LRT irr)

Cicloesilammina (CAS 108-91-8)

Tipo OEL: ACGIH - TWA (8h): 10 ppm; Note: A4; MW: 99.17; urt and eye irr

Crisene (CAS 218-01-9)

Tipo OEL: ACGIH - TWA (8h): - (L); Note: A3, BEIP; MW: 228.30; cancer

Cromo (CAS 7440-47-3)

Tipo OEL: UE TWA (8h): 2 mg/m³

Tipo OEL: ACGIH – TWA (8h): 0.5 mg/m³; MW: varies; resp tract irr

Tipo OEL: Italia: TWA (8h): 0.5 mg/m³

Cromo III (CAS 16065-83-1)

Tipo OEL: ACGIH - TWA (8h): 0.003 mg/m³(I); Note: A4, DSEN, RSEN; MW: varies; resptract irr, asthma

Cromo VI (CAS 18540-29-9)

Tipo OEL: ACGIH – TWA (8h): 0.0002 mg/m³; STEL: 0.0005 mg/m³; Note: A1, skin, DSEN, RSEN, BEI; MW: varies; lung and sinonasal cancer, resp tract irr, asthma

Dibutil ftalato (CAS 84-74-2)

Tipo OEL: ACGIH - TWA (8h): 5 mg/m³; MW: 278.34; testicular dam, eye and urt irr

Dietil ftalato (CAS 84-66-2)

Tipo OEL: ACGIH - TWA (8h): 5 mg/m³; Note: A4; MW: 222.23; eye and urt irr

Dimetil ftalato (CAS 131-11-3)

Tipo OEL: ACGIH - TWA (8h): 5 mg/m³; MW: 194.19; eye and urt irr

Dimetilnitrosammina (CAS 62-75-9)

Tipo OEL: ACGIH - TWA (8h): - (L); Note: A3, skin; MW: 74.08; liver and kidney cancer, liver dam

Disolfuro di carbonio (CAS 75-15-0)

Tipo OEL: UE TWA (8h): 5 ppm, 15 mg/m³

Tipo OEL: ACGIH - TWA (8h): 1 ppm; Note: skin, A4,BEI; MW: 76.14; pns impair

Tipo OEL: Italia: TWA (8h): 1 ppm, 3 mg/m³

Disulfiram (CAS 97-77-8)

Tipo OEL: ACGIH - TWA (8h): 2 mg/m3; Note: A4; MW: 296.54; vasodilation, nausea

Etanolo (CAS 64-17-5)

Tipo OEL: ACGIH - STEL: 1000 ppm; Note: A3; MW: 46.07; urt irr

Fenolo (CAS 108-95-2)

Tipo OEL: UE TWA (8h): 2 ppm, 8 mg/m³; STEL: 4 ppm, 16 mg/m³ (15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV))

Tipo OEL: ACGIH – TWA (8h): 5 ppm; Note: skin, A4,BEI; MW: 94.11; urt irr, lung dam, cns impair

Tipo OEL: Italia: TWA (8h): 2 ppm, 8 mg/m³; STEL: 4 ppm, 16 mg/m³

Formaldeide (CAS 50-00-0)

Tipo OEL: ACGIH – TWA: 0.1 ppm; STEL: 0.3 ppm; Note: DSEN, RSEN, A1; MW: 30.03; urt and eye irr, urt cancer

Manganese (CAS 7439-96-5)

Tipo OEL: UE TWA (8h): 0.2 mg/m³ (Inhalable fraction); 0.05 mg/m³ (Respirable fraction Bold-type: Indicative Occupational Exposure Limit Value (IOELV))



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Tipo OEL: ACGIH – TWA (8h): 0.02 mg/m³ (R); Note: A4; MW: 54.94; cns impair

Mercurio (CAS 7439-97-6)

Tipo OEL: UE TWA (8h): 0.02 mg/m³ (including mercuric oxide and mercuric chloride Bold-type: Indicative Occupational Exposure Limit Value (IOELV))

Tipo OEL: ACGIH – TWA (8h): 50.01 mg/m³; STEL: 0.03 mg/m³; Note: skin; MW: varies; cns and pns impair, kidney dam

Tipo OEL: Italia: TWA (8h): 0.02 mg/m³ (skin; when monitoring exposure to mercury and its inorganic divalent compounds, it should taken into account the related techniques of biological monitoring that complete the limit values of occupational exposure)

Metanolo (CAS 6756-1)

Tipo OEL: UE TWA (8h): 200 ppm, 260 mg/m³

Tipo OEL: ACGIH – TWA (8h): 200 ppm; STEL: 250 ppm; Note: skin, BEI; MW: 32.04; headache, eye dam, dizziness, nausea

Tipo OEL: Italia: TWA (8h): 200 ppm, 260 mg/m³

Molibdeno (CAS 7439-98-7)

Tipo OEL: ACGIH – MW: 95.95; Irt irr

Naftalene (CAS 91-20-3)

Tipo OEL: ACGIH – TWA (8h): 10 ppm; Note: skin, A3, BEI; MW: 128.19; urt irr, cataracts, hemolytic anemia

Tipo OEL: Italia: TWA (8h): 10 ppm, 50 mg/m³

Nichel (CAS 7440-02-0)

Tipo OEL: ACGIH - TWA (8h): 1.5 mg/m³(I); Note: A5; MW: 58.71; dermatitis, pneumoconiosis

N-metil-2-pirrolidone (CAS 872-50-4)

Tipo OEL: UE TWA (8h): 10 ppm, 40 mg/m³; STEL: 20 ppm, 80 mg/m³ (15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV))

Tipo OEL: Italia: TWA (8h): 10 ppm, 40 mg/m³; STEL: 20 ppm, 80 mg/m³ (skin)

Ossido di magnesio (CAS 1309-48-4)

Tipo OEL: ACGIH – TWA (8h): 10 mg/m³; Note: A4; MW: 40.32; urt, metal fume fever

Ossido di titanio (CAS 13463-67-7)

Tipo OEL: ACGIH – TWA (8h): 10 mg/m³; Note: A4; MW: 79.90; Irt irr

Xileni (isomeri CAS 95-47-6)

Tipo OEL: UE TWA (8h): 50 ppm, 221 mg/m³; STEL: 100 ppm, 442 mg/m³ (15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV))

Tipo OEL: ACGIH – TWA (8h): 100 ppm; STEL: 150 ppm; Note: A4, BEI; MW: 106.16; urt and eye irr, cns impair

Tipo OEL: Italia: TWA (8h): 50 ppm, 221 mg/m³ (skin); STEL: 100 ppm, 442 mg/m³ (skin and 15 minutes average value)

Piombo (CAS 7439-92-1)

Tipo OEL: UE TWA (8h): 0.15 mg/m³ (Inhalable fraction Bold-type: Binding Occupational Exposure Limit Value (BOELV))

Tipo OEL: ACGIH – TWA (8h): 0.05 mg/m³; Note: A3, BEI; MW: 207.20; cns and pns impair, hematologic eff

Tipo OEL: Italia: TWA (8h): 0.15 mg/m³

Rame (CAS 7440-50-8)

Tipo OEL: ACGIH – MW: 63.55; irr, gi, metal fume fever

Selenio (CAS 7782-49-2)

Tipo OEL: ACGIH – TWA (8h): 0.2 mg/m³; MW: 78.96; eye and urt irr

Stagno (CAS 7440-31-5)

Tipo OEL: ACGIH – TWA (8h): 2 mg/m³(I); MW: 118.69; pneumoconiosis

Stirene (CAS 100-42-5)

Tipo OEL: ACGIH – TWA (8h): 10 ppm; STEL: 20 ppm; Note: OTO, A3, BEI; MW: 104.15; cns and hearing impair, urt irr, peripheral neuropathy, visual disorders





Tallio (CAS 7440-28-0)

Tipo OEL: ACGIH – TWA (8h): 0.02 mg/m³(I); Note: skin; MW: 204.37; gi dam, peripheral neuropathy

Tetracloruro di carbonio (CAS 56-23-5)

Tipo OEL: UE TWA (8h): 1 ppm, 6.4 mg/m³; STEL: 5 ppm, 32 mg/m³ (15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV))

Tipo OEL: ACGIH - TWA (8h): 5 ppm; STEL: 10 ppm; Note: skin, A2; MW: 153.84; liver dam

Tiram - TMTD (CAS 137-26-8)

Tipo OEL: ACGIH – TWA (8h): 0.05 mg/m³(IFV); Note: DSEN, A4; MW: 240.44; body weight and hematologic eff

Toluene (CAS 108-88-3)

Tipo OEL: UE TWA (8h): 50 ppm, 192 mg/m³; STEL: 100 ppm, 384 mg/m³ (15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV))

Tipo OEL: ACGIH - TWA (8h): 20 ppm; Note: A4, BEI; MW: 92.13; (visual impair, female repro, pregnacy loss)

Tipo OEL: Italia: TWA (8h): 50 ppm, 192 mg/m³

Tricloroetilene (CAS 79-01-6)

Tipo OEL: UE TWA (8h): 10 ppm, 54,7 mg/m³ (Substantial contribution to the total body burden via dermal exposure possible); STEL: 30 ppm, 164.1 mg/m³ (Substantial contribution to the total body burden via dermal exposure possible and 15 minutes average value Bold-type: Binding Occupational Exposure Limit Value (BOELV))

Tipo OEL: ACGIH - TWA (8h): 10 ppm; STEL: 25 ppm; Note: A2, BEI; MW: 131.40; cns impair, cognitive decrements, renal toxicity

Tungsteno (CAS 7440-33-7)

Tipo OEL: ACGIH – TWA (8h): 3 mg/m³ (R) MW: 183.84; lung dam

The occupational exposure limit values set by the ACGIH (2020 Edition) and the GESTIS on hazardous substances (IFA, Institute for Occupational Safety and Health of German Social Accident Insurrance) database were taken into consideration. The values listed refer only to Italy and the European Union.

The use of standardized methods is recommended for monitoring these values.

8.2. Exposure controls

Eye protection: wear protection goggles during processes that produce powders.

Skin protection: wear clothing that protect completly the skin.

Hand protection: during handling operations, use protective gloves.

Respiratory protection: during processes that produce powders, use suitable protection equipment (filter mask at least FFP1).

Thermal risks: none currently known.

Environmental exposure controls: the process water must be convoyed into filter systems for the collection of material with variable particle size.

Appropriate technical controls: minimize exposure to dust: check periodically ventilation and aspiration in the work place.

Section 9: physical and chemical properties

9.1. Information on basic physical and chemical properties

Property	Value	Method:	Notes
Appearance and colour:	Granular material	Visual	
Physical state:	Solid	Visual	



Legth size range:	0.8 – 1.5 mm	UNI EN 14243:2019	
Odour:	N.A.		
Odour threshold:	N.A.		
pH:	7.3 – 7.9	pH scale	
Melting point / freezing point:	N.A.		
Initial boiling point and boiling range:	N.A.		
Flash point:	N.A.		
Evaporation rate:	N.A.		
Solid/gas flammability:	N.A.		
Upper/lower flammability or explosive limits:	N.A.	-	
Vapour pressure:	N.A.		
Vapour density:	N.A.		
Relative density:	0.3 – 0.7 g/cm ³	UNI EN 1097- 3:1999	
Solubility in water:	N.A.		
Solubility in oil:	N.A.		
Partition coefficient (n-octanol/water):	N.A.		
Auto-ignition temperature:	N.A.		
Decomposition temperature:	N.A.		
Viscosity:	N.A.		<u></u>
Explosive properties:	N.A.		
Oxidizing properties:	N.A.		

9.2. Other information

Property	Value	Method:	Notes
Miscibility:	N.A.		
Fat Solubility:	N.A.		
Conductivity:	N.A.		
Substance Groups relevant properties	N.A.		

Section 10: stabiliy and reactivity

10.1. Reactivity

Not reactive.

10.2. Chemical stability

Stable under all ordinary circumstances and under normal conditions of use.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Keep away from ignition sources.





10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None known.

Section 11: toxicological information

11.1. Information on toxicological effects

Toxicological information of the product Gommamica ® Buffing:

a) acute toxicity: based on available data, the classification criteria are not met; in literature, there are no data on tests, performed on animals and men, aimed at evaluating the consequences of acute toxicity for this mixture. Data regarding test performed directly on mixture are not available.

Some substances classified in the acute toxicity class via skin, by mouth and by inhalation are contained in the mixture but their concentrations are lower than the limit value to be considered relevant for classification; moreover, the mixture incorporates these substances in the polymer matrix and it's not expected that that substances contribute to the overall effects of the mixture on health.

b) skin corrosion/irritation: based on available data, the classification criteria are not met; in literature, there are no data on tests, performed aimed at evaluating the skin corrosion/irritation for this mixture. Data regarding test performed directly on mixture are not available.

Sulphur (CAS 7704-34-9) is contained in the mixture: this substance is classified as a skin irritant cat. 2 in a concentration such as to be considered in the classification of the mixture but its amount is lower than the limit which classifies the mixture itself as skin irritant.

c) serious eye damage/irritation: based on available data, the classification criteria are not met; in literature, there are no data on tests, performed aimed at evaluating seroius eye damage/irritation for this mixture. Data regarding test performed directly on mixture are not available.

Some substances classified in the serious eye damage/irritation class are contained in the mixture but their concentrations are lower than the limit value to be considered relevant for classification; moreover, the mixture incorporates these substances in the polymer matrix and it's not expected that that substances contribute to the overall effects of the mixture on health.

d) respiratory or skin sensititation: based on available data, the classification criteria are not met; in literature, there are no data on tests, performed aimed at evaluating respiratory or skin sensititation for this mixture. Data regarding test performed directly on mixture are not available.

Substances classified as respiratory sensititation are not contained in the mixture so these effects are not expected for this mixture.

Some substances classified in skin sensititation class are contained in the mixture but their concentrations are lower than the limit value to be considered relevant for classification; moreover, the mixture incorporates these substances in the polymer matrix and it's not expected that that substances contribute to the overall effects of the mixture on health.

e) germ cell mutagenicity: data regarding test performed directly on mixture are not available.

Some substances classified in germ cell mutagenicity class are contained in the mixture but their concentrations are lower than the limit value to be considered relevant for classification; moreover, the mixture incorporates these substances in the polymer matrix and it's not expected that that substances contribute to the overall effects of the mixture on health.

Data about germ cell mutagenicity of rubber granulate from end-of-life tyres ara available in literature (*Toxicological evaluation for the hazard assessment of tire crumb for use in public playgrounds*).

f) carcinogenicity: based on available data, the classification criteria are not met; in literature, there are no data on tests, performed aimed at evaluating carcinogenicity for this mixture. Data regarding test performed directly on mixture are not available.

Some substances classified in carcinogenicity class are contained in the mixture but their concentrations are lower than the limit value to be considered relevant for classification; moreover, the mixture incorporates these substances in the polymer matrix and it's not expected that that substances contribute to the overall effects of the mixture on health.

g) reproductive toxicity: based on available data, the classification criteria are not met; in literature, there are no data on tests, performed aimed at evaluating reproductive toxicity for this mixture. Data



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regarding test performed directly on mixture are not available.

Some substances classified in reproductive toxicity class are contained in the mixture but their concentrations are lower than the limit value to be considered relevant for classification; moreover, the mixture incorporates these substances in the polymer matrix and it's not expected that that substances contribute to the overall effects of the mixture on health.

- h) STOT single exposure: based on available data, the classification criteria are not met; in literature, there are no data on tests, performed aimed at evaluating specific target organ toxicity (single exposure) for this mixture. Data regarding test performed directly on mixture are not available. Some substances classified in specific target organ toxicity (single exposure) class are contained in the mixture but their concentrations are lower than the limit value to be considered relevant for classification; moreover, the mixture incorporates these substances in the polymer matrix and it's not expected that that substances contribute to the overall effects of the mixture on health.
- i) STOT repeated exposure: based on available data, the classification criteria are not met; in literature, there are no data on tests, performed aimed at evaluating specific target organ toxicity (repeated exposure) for this mixture. Data regarding test performed directly on mixture are not available.

Some substances classified in specific target organ toxicity (repeated exposure) class are contained in the mixture but their concentrations are lower than the limit value to be considered relevant for classification; moreover, the mixture incorporates these substances in the polymer matrix and it's not expected that that substances contribute to the overall effects of the mixture on health.

j) aspiration hazard: based on available data, the classification criteria are not met; in literature, there are no data on tests, performed aimed at evaluating aspiration hazard for this mixture. Data regarding test performed directly on mixture are not available.

Section 12: ecological information

12.1. Toxicity

Based on available data mixture is not classified as dangerous for the acquatic environment accordig to Reg. (CE) n. 1272/2008.

Cobalt sulphide (CAS 1317-42-6) is contained in the mixture: it is classified as toxic for acquatic organisms. Cobalt sulphide is present in the mixtur in concentration that have to be consider for classification of mixture itself but its concentration is lower than the limit value to be considered relevant for classification of the mixture as toxic for acquatic environment.

In literature, following data are available for cobalt sulphide (CAS 1317-42-6) (source infocard echa):

Cobalt sulphide (CAS 1317-42-6)

Short-term toxicity to fish: LC50 for freshwater fish1.5 mg/L

Long-term toxicity to fish: EC10 / LC10 or NOEC for freshwater fish 351.4 μ g/L; EC10 / LC10 or NOEC for marine water fish 31.802 mg/L

Short-term toxicity to aquatic invertebrates: EC50 / LC50 for freshwater invertebrates 610 μ g/L; EC50 / LC50 for marine invertebrates 2.32 mg/L

Long-term toxicity to aquatic invertebrates: EC10 / LC10 or NOEC for freshwater invertebrates $7.55 \mu g/L$; EC10 / LC10 or NOEC for marine invertebrates $206 \mu g/L$

Toxicity to aquatic algae and cyanobacteria: EC50 for freshwater algae 197 μ g/L; EC50 for marine water algae 24.1 μ g/L; EC10 or NOEC for freshwater algae 66.9 μ g/L; EC10 or NOEC for marine water algae 1.23 μ g/L

Toxicity to aquatic plants other than algae: EC50 for freshwater plants 52 μ g/L; EC10 or NOEC for freshwater plants 10.4 μ g/L

Toxicity to microorganisms: EC50 for microorganisms 120 mg/L; EC10 or NOEC for microorganisms 3.73 mg/L

Sediment toxicity: EC50 / LC50 for freshwater sediment 1 703 mg/kg sediment dw; EC10 / LC10 or NOEC for freshwater sediment 698 mg/kg sediment dw

Toxicological test data are available in literature; these tests were performed on products similar to the mixture described in this safety data sheet. As sample:



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 Acute aquatic toxicity of tire and road wear particles to alga, daphnid, and fish (Britt McAtee et al. 2011).

12.2. Persistence and degradability

Specific studies are not available on the possibility that the mixture will degrade in the environment through photolysis, hydrolysis or other processes.

In literature, about substances contained in the mixture, following data are available:

Substance	Persistence and degradability (source infocard echa)
Carbon black (CAS 1333-86-4):	Not biodegradable, insoluble in water and not reactive by hydrolysis. Not degradable by light and reactive species by photodegradation in air or in surface water.
Silicon dioxide – Silica (CAS 7631-86-9)	Unpredictable photodegradation or chemical degradation. Hydrolysis to a lesser extent, not yet quantifiable, is limited to a layer of gel that surrounds the particle in an aqueous medium. Biodegradation is not applicable to these inorganic substances.
Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0) Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7) Distillates (petroleum), solvent-refined heavy paraffinic (CAS 64741-88-4) Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	These compounds are resistant to hydrolysis because they don't have a functional group. It contains hydrocarbon molecules that absorb UV light below 290 nm, a range of UV light that does not reach the earth's surface. Therefore, this substance does not have potential to undergo photolysis in water and soil; this process is not expected to contribute to a measurable degradable loss of substance in the environment. Studies have shown that substance is not easily biodegradable (2-4% in 28 days, BP Limited International 1990; 31.13%, Exxon 1995).
Extracts (petroleum), solvent-refined heavy paraffinic distillate solvent (CAS 68783-04-0)	These compounds are resistant to hydrolysis because they don't have a functional group. It contains hydrocarbon molecules that absorb UV light below 290 nm, a range of UV light that does not reach the earth's surface. Therefore, this substance does not have potential to undergo photolysis in water and soil; this process is not expected to contribute to a measurable degradable loss of substance in the environment. The degradation half-lives calculated for the components of this substances vary between 2.75 and 661986 days in water and sediments and between 2.75 and 165496 days on the ground. This is the entire range of expected values and it could be not rapresentative of the properties of the UVCB substance as a whole.
Sulphur (CAS 7704-34-9)	It is a substance highly insoluble in water so it is not necessary to conduct hydrolysis tests. Test for air transformation evaluation showed that half-life is 4.25h even if it is illuminated with 80000 lux at 25°C. after 1.15h, it remained unchanged (unnamed, 1991). Not biodegradable substance
Zinc sulphide (CAS 1314-98-3)	It is an inorganic substance so tests to evaluate hydrolysis, photo-transformation in air, water, soil and biodegradation are not applicable.

12.3. Bioaccumulative potential

Specific studies are not available on the mixture.



In literature, about substances contained in the mixture, following data are available:

Substance	Bioaccumulative potential
	(source infocard echa)
Carbon black (CAS 1333-86-4):	Based on physico-chemical properties it is an inert solid so, for its stability and insolubility, it is not predictable its spread to aquatic, terrestrial and sediment organisms.
Silicon dioxide – Silica (CAS 7631-86-9)	Due to its intrinsic chemical-physical propertie, such as the absence of lipophilicity and the body's ability to expel the absorbed SiO ₂ components, bioaccumulation can be excluded. However, silica can be actively accumulated by land plants and some marine organisms which represents a normal natural process.
Distillates (petroleum), solvent- dewaxed heavy paraffinic (CAS 64742-65-0)	Standard tests to evaluate bioaccumulation are not appropriate because it is a UVCB substance belonging to the hydrocarbon family.
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	Standard tests to evaluate bioaccumulation are not appropriate because it is a UVCB substance belonging to the hydrocarbon family. The BCF calculated for the components of this substance is between 0.4 and 71100 l/Kg. This is the full range of expected values and it could be not representative of the properties of the UVCB substance as a whole.
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	Standard tests to evaluate bioaccumulation are not appropriate because it is a UVCB substance belonging to the hydrocarbon family.
Distillates (petroleum), solvent- refined heavy paraffinic (CAS 64741-88-4)	Standard tests to evaluate bioaccumulation are not appropriate because it is a UVCB substance belonging to the hydrocarbon family. The BCF calculated for the components of this
Extracts (petroleum), solvent- refined heavy paraffinic distillate solvent (CAS 68783-04-0)	substance is between 0.4 and 71100 l/Kg. This is the full range of expected values and it could be not representative of the properties of the UVCB substance as a whole.
Sulphur (CAS 7704-34-9)	Inorganic substance with no significant bioaccumulation potential.
Zinc sulphide (CAS 1314-98-3)	In a study, high BCF values were observed at lower zinc exposure levels, which it is attributable to the fact that organisms concentrate zinc to meet internal physiological needs. For the same reason as homeostasis, BCF will decrease when exposure concentrations increase. This is, in general, a negative result for the relationship between BCF and exposure (McGeer et al 2003). Regarding bioaccumulation, the EU risk assessment report (ECB 2008) concludes that "it was concluded that secondary poisoning is not considered relevant in the assessment of the effects of zinc".

12.4. Mobility in soil

Specific studies are not available on the mixture.

In literature, about substances contained in the mixture, following data are available:

Substance	Mobility in soil (source infocard echa)		
Carbon black (CAS 1333-86-4):	It is insoluble in all organic solvents and its vapor pressure is negligible. Relevant parameters for environment distribution,		





	such as water solubility, octanol/water partition coefficient, dissociation constant or adsorption/desorption constant, cannot be measured analytically in water or in organic solvents, such as octanol due to insolubility and vapour pressure negligible so it is not expected to spread in air or in water in significant quantities. The only relevant distribution compartment in environment is deposition on the ground and on sediments. In environmental conditions, due to its chemical nature and intrinsic physical properties, it is not volatile. Due to its low water
Silicon dioxide – Silica (CAS 7631-86-9)	solubility and very low vapour pressure, it should be distributed mainly in soils/sediments, weakly in the water and probably not in the air at all.
Distillates (petroleum), solvent- dewaxed heavy paraffinic (CAS 64742-65-0) Distillates (petroleum), hydrotreated	Standard tests to evaluate adsorption/desorption are not appropriate because it is a UVCB substance belonging to the hydrocarbon family. Substance distribution in the environmental compartments (air, water, soil and sediments) was calculated
heavy paraffinic (CAS 64742-54-7) Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	using PETRORISK model. Based on the regional exposure assessment, the multimedia distribution of the substance is 39.93% in air, 3.98% in water, 34.01% in sediment and 22.09% in soil.
Distillates (petroleum), solvent- refined heavy paraffinic (CAS 64741-88-4)	Standard tests to evaluate adsorption/desorption are not appropriate because it is a UVCB substance belonging to the hydrocarbon family. The log Koc calculated for the components of this substance is between 1.71 and 14.70. This is the full range of expected values and it could be not representative of the properties of the UVCB substance as a whole.
Extracts (petroleum), solvent-refined heavy paraffinic distillate solvent (CAS 68783-04-0)	Standard tests to evaluate adsorption/desorption are not appropriate because it is a UVCB substance belonging to the hydrocarbon family. The log Koc calculated for the components of this substance is between 3.62 and 14.70. This is the full range of expected values and it could be not representative of the properties of the UVCB substance as a whole.
Sulphur (CAS 7704-34-9)	Inorganic substance with no significant adsorption potential.
Zinc sulphide (CAS 1314-98-3)	Adsorption/desorption, for metals means distribution of them between the different fractions of the environmental sector, e.g. water (dissolved fraction, fraction linked to suspended matter), soil (fraction linked or complexed to soil particles, fraction in the water of the soil pores, etc.). This distribution corresponds to the distribution coefficients between these different fractions. Zinc partition coefficients in fresh water were reviewed in the risk assessment report RAR (ECB 2008). Based on these experimental tests, for EU waters has been defined a partition distribution coefficient between solid particulate matter and water (Kpsusp) of 5.04. It has been used throughout the RAR. The Kp for the distribution between sediment and water (Kpsed) was estimate, in RAR, from that for particulate matter equal to 73.000 I/Kg (ECB 2008). For sea water, it was derived a suspended water/matter coefficient of 6010 I/Kg. For soil, a solid-water partition coefficient was determinated experimentally on 11 American soils in 158.5 I/Kg (log value 2.2). this value was used in the zinc RAR.



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12.5. Results of PBT and vPvB assessment

Mixture contains substances PBT and vPvB but none of them in concentration greater than 0.1%

12.6. Other adverse effects

None known.

Section 13: disposal considerations

13.1. Waste treatment methods

Recover if possible otherwise send the material to authorized disposal plants, comply with the local and national regulations currently in force.

Section 14: transport information

14.1. UN number:

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A

14.4. Packing group

N.A.

14.5. Environmental hazards

N.A.

14.6. Special precautions for user

During loading and unloading operation use the same precautions described in section 7.

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

N.A.

Section 15: regulatory information

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

UE legislation:

- Reg. (CE) n. 1907/2006 (REACH)
- Reg. (CE) n. 1272/2008 (CLP)
- Dir. (UE) 2008/98/CE
- Dir. (UE) 2018/851
- Dir. (UE) 2018/852
- Reg. (UE) 2016/425
- Reg. (CE) N. 440/2008

Restrictions of use:

Restriction 50 Annex VII Reg. (CE) n. 1907/2006 point 5 and point 6

Italian legislation:

• D. Lgs. 3-4-2006 n. 152





- D.lgs. 9 aprile 2008, n. 81
- D.M. 5 febbraio 1998

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the mixture.

In accordance with article 2, paragraph 7, letter b) of EC Regulation no. 1907/2006 and subsequent amendments, the product is exempted from the application of the provisions of titles II, V, VI of the same regulation. Since the obligation to carry out the chemical safety assessment is determined by Article 14 Title II of the aforementioned Regulation, the product is exempted from this obligation.

Section 16: other information

This safety data sheet is in revision 2 and has been drown up in copliance with Reg. (CE) n. 1907/2006.

Classification and procedure used to derive it are according to Reg. (EC) n. 1272/2008 in relation to mixture: not dangerous.

Acronyms and abbreviations:

ACGIH American Conference of Governmental Industrial Hygienists

ADR European Agreement concerning the International Carriage of Dangerous Goods by

Road

BCF Bioconcentration factor

CAS Chemical Abstracts Service number

CER European waste code

CLP Classification, Labelling and Packaging Regulation

DNEL Derived No Effect Level

EC50 Effect concentration 50% of sample ECHA European Chemicals Agency GLP Good laboratory practice

IATA DGR International Air Transport Association Dangerous Goods Regulations

IMDG
Code
International Maritime Dangerous Goods Code

Code
PAH
Polycyclic aromatic hydrocarbons

PAH Polycyclic aromatic hydrocari LC50 Lethal concentration 50%

N/A non applicable n.d. non aviable

NIOSH National Institute for Occupational Safety and Health

NOAEC No Observed Adverse Effect Concentration

OECD Organisation for Economic Co-operation and Development

ONU United Nations organization

OSHA Occupational Safety and Health Administration
PBT Perisistent, bioaccumulative and toxic substance

PFU End-of-life tyres

PNEC Predicted No Effect Concentration
PNOC Particles not otherwise classifiable

RAR Risk Assessment Report

REACH Registration, Evaluation, Authorisation, Restriction of Chemicals

RID Regulations concerning the International Carriage of Dangerous Goods by Rail

STOT RE Specific target organ toxicity – Repeated exposure STOT SE Specific target organ toxicity – Single exposure

SU Sector of use

TLV Threshold Limit Values
TWA Time Weighted Average

UVCB unknown or variable composition, complex reaction products or of biological materials

vPvB Very perisistent, very bioaccumulative and very toxic substance

Full text of phrases referred to in section 3:





H315 Causes skin irritation.

H350 May cause cancer.

H400 Very toxic to acquatic life.

H410 Very toxic to acquatic life with long lasting effects.

Hazard class and hazard category	Code	Description
Skin Irrit. 2	3.2/2	Skin irritation, Cat. 2
Carc. 1B	3.6/1B	Cancerogenicity, Cat. 1B
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1

Bibliography and data sources:

ECHA website: European Chemicals Agency

Gestis database on hazardous substances (IFA, Institute for Occupatonal Safety and Health of German Social Accident Insurrance).

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The legal regulations are subject to change and may differ between one place and another. It is the user's responsibility to ensure that his activities comply with all national and local regulations.

The information presented in this safety data sheet refer exclusively to the product as sold and shipped.

Since the conditions of use of the product cannot be controlled by the manufacturer, it is the user's duty to determine the conditions necessary to use the product in complete safety.

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