Section 1: Identification of The Substance / Mixture and of The Company / Undertaking

1.1 Product Identifier
Product name: Gum Rosin
EC number: 232-475-7
CAS Number: 8050-09-7
Index number: 650-015-00-7
REACH Registration Number: 01-2119480418-32-0012
INCI Name: Colophonium

1.2 Relevant Identified Uses of The Substance or Mixture and Uses Advised Against
Relevant identified uses: Manufacture of Adhesives, sealants, coating and paints, ink and toners, Pulp & paper, cosmetics, etc.

Uses advised against: There are no uses advised against

1.3 Details of The Supplier of The Safety Data Sheet
Supplier: BosTech Polymer LLC.FZ
Address: Office 332, European Business Centre, Dubai Investment Park 1, Dubai, United Arab Emirates
Telephone: +971 54 2943817
E-mail : info@bostechpolymer.com

Section 2: Hazards Identification

2.1 Classification of The Substance or Mixture
2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)
Skin Sensitization 1 - H317
2.1.2 Additional information:
Full text of R- and H-phrases and EUH phrases: see section 16

2.2 Label Elements
Labelling according to Regulation (EC) No 1272/2008 (CLP)
Hazard pictogram :

GHS 07

Signal word
Warning

Hazard statements:

H317 May cause an allergic skin reaction
Precautionary statements:
P261 avoid breathing dust/fume
P272 contaminated work clothing should not be allowed out of the workspace
P280 wear protective gloves/protective clothing
P302+P352 IF ON SKIN: Wash with plenty of water/
P333+P313 if skin irritation or rash occurs: Get medical advice/attention
P321 specific treatment
P363 wash contaminated clothing before reuse
P501 dispose of contents/container in accordance with local/regional/national/international regulation

2.3 Other Hazards
vPvB/PBT assessment according regulations (EC) 2017/2100 Annex XIII : not PBC & not vPvB Endocrine disrupting properties according regulations (EC) 2017/2100 or (EC) 2018/605 : not available

Section 3 : Composition / Information on Ingredients
3.1 Substances

Substance name	Index Number in CLP Annex VI	CAS number	Weight % content (or range)	Classification [1272/2008/EC]
Gum Rosin	650-015-00-7	8050-09-7	100 %	Skin Sens. 1 - H317

3.2 Mixtures
Not Available

Section 4 : First-Aid Measures
4.1 Description of First Aid Measures

General notes: -
Following inhalation: Move exposed person to fresh air. Keep person warm and at rest. Take specific treatment if needed.

Following skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Get medical attention In the event of any complaints or symptoms, avoid further exposure. Wash clothing and shoes before reuse.

Following eyes contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower
eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs

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Following ingestion : Wash out mouth with water. Remove dentures if any. Never give anything by mouth to an
unconscious person. If unconscious, place in recovery position and get medical attention
immediately.

Note for the doctor : No specific treatment. Treat symptomatically. Contact poison treatment specialist

immediately if large quantities have been ingested or inhaled.

4.2 Most Important Symptoms & Effects Both Acute & Delayed

Repeated or prolonged contact may cause skin sensitization.
Repeated or prolonged inhalation exposure may cause asthma

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed : -

Section 5 : Fire-Fighting Measures
5.1 Extinguishing Media

Suitable extinguishing media : use water spray or mist, dry chemical, foam or CO2
Unsuitable extinguishing media : Do not use water jet

5.2 Special Hazards Arising from The Substance or Mixture

Hazardous combustion products: thermal decomposition products include carbon dioxide and carbon monoxide.

5.3 Advice for Firefighters : No special measures required

Section 6 : Accidental Release Measures
6.1 Personal Precautions, Protective Equipment & Emergency Procedures
6.1.1 For non-emergency personnel

Protective Equipment : Wear proper protective equipment
Emergency procedures : Not Applicable
If required, notify relevant authorities according to all applicable regulations.

6.1.2 For Emergency responders
Wear proper personal protective apparatus as indicated in Section 8 and avoid skin contact and inhalation. Do not touch spilled material. Stop leak if you can do it without risk. Move container to safe area from the leak area. Remove all sources of ignition.

6.2 Environmental Precautions :
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air)

6.3 Methods and Material for Containment and Cleaning Up
6.3.1 For containment

Clear area of personnel and move up wind. Prevent spillage from entering drains or water course. No smoking flame or ignition sources. Stop leak if safe to do so.

6.3.2 For cleaning up:
Large spill:
- Stay upwind and keep out of low areas. Dike for later disposal.
- Notification to central government, local government. When emissions at least of the standard amount.
- Dispose of waste in accordance with local regulation.
- Appropriate container foe disposal of spilled material collected.

Small spill:
- Appropriate container for disposal of spilled material collected.
- Put the spilled material in an appropriate containers and clean the contaminated area.

6.3.3 Other information:
Slippery when spilt.

6.4 Reference to Other Sections : 7, 8 & 13

Section 7: Handling and Storage

7.1 Precautions for Safe Handling
Protective measures:
• Measures to prevent fire: avoid any formation of dust and keep dust clouds away from any possible ignition points because they may cause explosion hazards.
• Measures to prevent aerosol and dust generation: No special measures required.
• Measures to protect the environment: No special measures required.
Advice on general occupational hygiene: avoid direct contact with eyes and skin. Avoid inhalation. Use proper safety equipments as recommended on Section 8.

7.2 Conditions for Safe Storage, Including any Incompatibilities
Technical measures and storage conditions: keep products in a dried, well ventilated room and do not apply direct heat.

Packaging material : -
Requirements for storage rooms and vessels : dry and well ventilated room.

7.3 Specific End Use(s)
Recommendations : Industrial uses [SU3] Adhesives, sealants [PC1] Coatings and paints, thinners, paint removers [PC9a] Ink and Toners [PC18]

Industrial sector specific solutions : -

Section 8 : Exposure Control / Personal Protection

8.1 Control Parameters:
8.1.1 Occupational Exposure Limit
European Union (EU) Commission Directive 2006/15/EC (IOELVs)
Not available

8.1.2 Recommended Monitoring Procedures
Personal workplace atmosphere or biological monitoring maybe required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

8.1.3 DNEL/PNEC - Values
GUM ROSIN
EC number : 232-475-7 CAS number : 8050-09-7
DNELs

	Workers		Consumers/General Population	
Route of Exposure	Acute effect local	Acute effect systemic	Acute effect local	Acute effect systemic
Oral	Not required		NC	15 mg/kg bw/day
Dermal	NC	25 mg/kg bw/day	NC	15 mg/kg bw/day
Inhalation	NC	176.32 mg/m3	NC	52.174 mg/m3

PNECs

Environmental protection target	PNEC
Fresh water	0.005 mg/L
Freshwater Sediments	108 mg/kg sediment dw
Marine water	0.0005 mg/L
Marine Sediments	10.8 mg/kg sediment dw
STP	1000 mg/L
Soil	21.4 mg/kg soil dw
Intermittent releases	-

8.2 Exposure Control
8.2.1 Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit

8.2.2 Personal protection equipment
8.2.2.1 Eyes and face protection : safety goggles

8.2.2.2 Hands/body protection : adapted gloves, lab coat
8.2.2.3 Respiratory protection : dust respirator
8.2.2.4 Thermal hazards : -

8.2.3 Environmental Exposure Controls
Subtance/mixture related measures to prevent exposure : -
Instruction measures to prevent exposure : do not wash away into sewer

Section 9 : Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance	Light yellow, solid, Glassy	**Vapour Density**	Not applicable
Odour	Faint	**Relative Density (H_2O=1)**	1.034 at 20°C
Odour Threshold	Not available	**Bulk Density**	0.600 g/ml
Ph	Not available	**Solubility(ies)**	0.9 mg/L at 20 °C
Melting Point / Freezing Point	66.5 - 93.4°C / -	**Partition Coefficient (n-Octanol/Water)**	Rosin is a UVCB and thus has a range of log K_{ow} from 3.0 to 6.2
Initial Boiling Point and Boiling Range	The substance decomposes before Boiling	**Auto-Ignition Temperature**	Not applicable
Flash Point	Above 200°C	**Decomposition Temperature**	The sample is seen to decompose at approximately 200°C
Evaporation Rate	Not available	**Viscosity**	Not applicable
Flammability (Solid, Gas)	Not highly flammable	**Explosive Properties**	Not explosive
Upper/lower Flammability or Explosive Limits	Not available	**Oxidizing Properties**	Not oxidizing
Vapour Pressure	400 Pa at 124.5°C		

9.2 Other safety information : -

Section 10 : Stability and Reactivity
10.1 Reactivity : No data available
10.2 Chemical Stability : Stable under normal conditions
10.3 Possible Hazardous Reaction : No dangerous reactions known
10.4 Conditions to Avoid : No data available
10.5 Incompatible Materials : Avoid contact with strong oxidizing compounds
10.6 Hazardous Decomposition Products : Thermal decomposition products include carbon dioxide and carbonmonoxide.

Section 11 : Toxicological Information

Section 11 : Toxicological Information

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

- Acute toxicity:

Method	Results	Reference
ORAL ADMINISTRATION		
Rat oral: unspecified	LD50: 2800 mg/kg bw (male/female) based on: test mat. (rats) LD50: > 1000 — < 2000 mg/kg bw (male/female) based on: test mat. (guinea pig)	None given (1956) **Test material (EC name): Rosin**
rat (Sprague-Dawley) male/female oral: gavage	LD50: > 5000 — < 10000 mg/kg bw (female) based on: test mat. LD50: > 7500 — < 10000 mg/kg bw (male) based on: test mat.	Unknown (1977) **Test material (CAS number): 65997-05-9 (read-across)**
DERMAL EXPOSURE		
rat (Sprague-Dawley) male/female Coverage: porous gauze dressings OECD Guideline 402 (Acute Dermal Toxicity) EU Method B.3 (Acute Toxicity (Dermal)	LD50: > 2000 mg/kg bw (male) based on: test mat. LD50: > 2000 mg/kg bw (female) based on: test mat.	Colas S (2009) **Test material (EC name): Rosin**

• Skin corrosion/irritation : Not skin irritating – 4 h, Skin - Rabbit (OECD Test Guidline 404)
• Serious eye damage/irritation : Not eye irritating, eyes – Rabbit (OECD Test Guidline 405)
• Respiratory or skin sensitisation : No information available
• Germ cell mutagenicity : Not mutagenic, Ames Test, S. typhimurium (OECD Guideline 471)
• Carcinogenicity : No information available
• Reproductive toxicity : No information available
• STOT-single exposure : No information available
• STOT-repeated exposure : No information available
• Aspiration hazard : No information available

11.2 Information on other hazard:

11.2.1 Endocrine disrupting properties : not EDC according to REACH Article 57 (f) or regulations (EC)
2017/2100 or (EC) 2018/605
11.2.2 Other information : Not available

Section 12 : Ecological Information

12.1 Toxicity

Method	Results	Reference
SHORT TERM EFFECTS ON FISH (FRESHWATER)		
Brachydanio rerio (new name: Danio rerio) semi-static OECD Guideline 203 (Fish, Acute Toxicity Test)	LL100 (24 h): <= 10 mg/L dissolved (nominal) LL100 (96 h): <= 10 mg/L dissolved (nominal) LL50 (96 h): < 10 mg/L dissolved (nominal) NOELR (96 h): >= 1 mg/L dissolved (nominal)	anon. (1998a) **Test material (EC name): Rosin**
Brachydanio rerio (new name: Danio rerio) semi-static OECD Guideline 203 (Fish, Acute Toxicity Test)	LL100 (24 h): <= 10 mg/L dissolved (nominal) LL100 (96 h): <= 10 mg/L dissolved (nominal) LL50 (96 h): < 10 mg/L dissolved (nominal)	anon. (1999a) **Test material (EC name): Rosin**

Pimephales promelas Static OECD Guideline 203 (Fish, Acute Toxicity Test)	NOELR (96 h): >= 1000 mg/L dissolved (nominal) LL50 (96 h): > 1000 mg/L dissolved (nominal)	Kelly, C.R., Clayton, M.A. (2001a) **Test material (EC name): Rosin**
Brachydanio rerio (new name: Danio rerio) semi-static OECD Guideline 203 (Fish, Acute Toxicity Test)	LL100 (24 h): <= 10 mg/L dissolved (nominal) LL100 (24 h): >= 10 mg/L dissolved (nominal) LL50 (96 h): < 10 mg/L dissolved (nominal) LL100 (96 h): <= 10 mg/L dissolved (nominal)	anon. (1999b)
Brachydanio rerio (new name: Danio rerio) semi-static OECD Guideline 203 (Fish, Acute Toxicity Test)	LL100 (24 h): <= 10 mg/L dissolved (nominal) LL50 (96 h): < 10 mg/L dissolved (nominal) NOELR (96 h): >= 1 mg/L dissolved (nominal)	anon. (1999c)
Brachydanio rerio (new name: Danio rerio) Static OECD Guideline 203 (Fish, Acute Toxicity Test)	LC50 (96 h): 60.3 mg/L test mat. (nominal)	Scheerbaum D **Test material (EC name): Rosin**
SHORT TERM EFFECTS ON AQUATIC INVERTEBRATES (FRESHWATER, STATIC)		
Daphnia magna OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)	EL50 (48 h): 911 mg/L dissolved (nominal) based on: mobility NOELR (48 h): 750 mg/L dissolved (nominal) based on: mobility	Kelly, C.R., Clayton, M.A. (2001) **Test material (EC name): Rosin**
Daphnia magna OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)	EL100 (48 h): <= 100 mg/L dissolved (nominal) based on: mobility NOELR (48 h): >= 10 — < 100 dissolved (nominal) based on: mobility	anon. (1998c)
EFFECTS ON ALGAE FISH AND AQUATIC PLANTS (FRESHWATER, STATIC)		
Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata) (algae) OECD Guideline 201 (Alga, Growth Inhibition Test)	NOELR (72 h): >= 1000 mg/L dissolved (nominal) based on: growth rate NOELR (72 h): >= 1000 mg/L dissolved (nominal) based on: biomass EL50 (72 h): > 1000 mg/L dissolved (nominal) based on: growth rate EL50 (72 h): > 1000 mg/L dissolved (nominal) based on: biomass	Kelly, C.R., Clayton, M.A. (2001b) **Test material (EC name): Rosin**
Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata) (algae) OECD Guideline 201 (Alga, Growth Inhibition Test)	NOELR (72 h): >= 100 mg/L dissolved (nominal) based on: growth rate NOELR (72 h): >= 100 mg/L dissolved (nominal) based on: biomass EL50 (72 h): > 100 mg/L dissolved (nominal) based on: growth rate EL50 (72 h): > 100 mg/L dissolved (nominal) based on: biomass	anon. (1998d) **Test material (EC name): Rosin**

12.2 Persistence and degradability : Biodegradation in water: not readily biodegradable
12.3 Bioaccumulative potential : Aquatic BCF o rosin in 56.23 L/kgwwt (QSAR estimation)
12.4 Mobility in Soil : Not available
12.5 Results PBT & vPvB Assessment : not a PBT/vPvB substance
12.6 Endocrine disrupting properties : not EDC according to REACH Article 57 (f) or regulations (EC) 2017/2100 or (EC) 2018/605
12.7 Other adverse effects : Not available
12.8 Additional Information : Not available

Section 13 : Disposal Consideration
13.1 Waste Treatment Methods
13.1.1 Product / Packaging disposal: -
Waste Codes / Waste Designations According to EWC / AVV: 16 03 06
13.1.2 Waste Treatment Relevant Information: -
13.1.3 Sewage Disposal Relevant Information: do not wash away into sewer
13.1.4 Other Disposal Recommendations : -

Section 14: Transport Information

14.1 UN No. : Not classified as dangerous by the legislation of transportation of dangerous products.
14.2 UN proper shipping name : Not applicable
14.3 Transport hazard class(es) : Not applicable
14.4 Packing group : Not applicable
14.5 Environment hazards : Not applicable
14.6 Special precautions for user : Not applicable
14.7 Maritime transport in bulk : Not applicable
according to annex IMO
Instruments

Section 15 : Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
EU Regulations Authorisations and/or restrictions on use:
Authorization : Not applicable
Restriction on use : Not applicable
Other EU regulations : Not applicable
Other national regulations : Not applicable
15.2 Chemical Safety Assesssment:
No Chemical Safety Assessement has been carried out for this substance/mixture by the supplier.

Section 16 : Other Information

To the best of our knowledge and belief, the information contained herein is accurate and obtained from sources believed to be reliable. No representation is made that the information is complete or the material is suitable for all purposes. The final determination as to the suitability of the user's intended use of the material is the sole responsibility of the user. All materials may present unknown hazards even when used in common applications, and accordingly, it is the sole responsibility of the user to understand and address all potential hazards, including those identified herein. The information set forth in Sections 11 and 12 reflects data available as of the date hereof.
16.1 Indication of changes: General rewriting according to Regulations (EC) 1907/2006 & 2020/878

16.2 Abbreviations and acronyms:
AGS Ausschuss für Gefahrstoffe OEL Occupational Exposure Limit
AVV Abfallverzeichnisverordnung OSHA Occupational Safety and Health Administration
BCF BioConcentration Factor PBT Persistant Bioaccumulable Toxique
CAS Chemical Abstract Service STOT Specific Target Organ Toxicity
CSR Chemical Safety Report TCLo Toxic Concentration Low
DFG German Research Foundation TDLo Toxic Dose Low
DNEL Derived No Effect Level UN United Nations
EC European Commission vPvB very Persistent, very Bioaccumulative