according to the Regulations (EC) 1907/2006 & 1272/2008

Version number 4 Page 1 of 11

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

1.1 Product identifier

Product name: Indonesian Gum Rosin X / WW / WG

EC number: 232-475-7 Index number: 650-015-00-7 CAS Number: 8050-09-7

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

Relevant identified uses: Industrial manufacture, industrial formulation (binding agents, intermediates,

monomer) Uses advised against: there are no uses advised against

1.3 Details of the supplier of the safety data sheet

Manufacturer/supplier: PT Global Sejahtera Perkasa

Address: JL. Besar Namo Rambe Dusun 1 No.8 Kel. Batu Penjemuran, Kec. Namorambe,

Kab. Deli Serdang, Sumatera Utara Telephone number / Fax: +62 822-7327-3251

E-mail: husni.lee@gmail.com

Emergency telephone number

Telephone number: UK National Poisons Emergency: +44 870 600 6266

Opening hours: 24 hours Others comments: -

Section 2: Hazards identification

2.1 Classification of the substance or mixture

According to Regulation (EC) No 1272/2008:



GHS07

Skin Sens. 1 - H317: may cause an allergic skin reaction

According to Directive 67/548/EEC:



Xi; Irritant

R43: may cause sensitization by skin contact

Additional information: Full text of R- and H-phrases and EUH phrases: see section 16

according to the Regulations (EC) 1907/2006 & 1272/2008

Version number 4 Page 2 of 11

Product name: Indonesian Gum Rosin X / WW /WG

2.2 Label elements

Product identifier: Indonesian Gum Rosin X / WW /WG

Pictogram:



GHS07

Signal word: Warning

Hazard statements: Skin Sens. 1 - 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 soap and water

P333+P313 if skin irritation or rash occurs: Get medical advice/attention

P321 specific treatment (see ... on this label)
P363 wash contaminated clothing before reuse
P501 dispose of contents/container to ...

2.3 Other hazards

vPvB/ PBT assessment according to regulation (EC) No 1907/2006, Annex XIII: Not PBT and not vPvB Other hazards:-

Section 3: Composition / information on ingredients

3.1 Substances

Identification name	EC number	CAS number	Weight % content (or range)
Indonesian Gum Rosin X / WW /WG	232-475-7	8050-09-7	100 %

Additional information: -

For full text of R- and H-Phrases: See section 16

according to the Regulations (EC) 1907/2006 & 1272/2008

Version number 4 Revision: 22.10.2023 Page 3 of 11

Product name: Indonesian Gum Rosin X / WW / WG

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. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately

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. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly 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

Following ingestion: Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attentionimmediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband 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 iet

5.2 Special hazards arising from the substance or mixture:

Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).

When processed with flammable liquids/vapors/mists, ignitable (hybrid) mixtures may be formed with combustible dusts. Ignitable mixtures will increase the rate of explosion pressure rise and the MIE will be lower than the pure dust in air mixture. The LEL of the vapor/dust mixture will be lower than the individual LELs for the vapors/mists or dusts. See NFPA 77 for additional guidance.

Hazardous combustion products: thermal decomposition products include formaldehyde, acetone, methanol, aldehydes, carbon dioxide, carbon monoxide, methane, ethane and acids.

according to the Regulations (EC) 1907/2006 & 1272/2008

Version number 4 Page 4 of 11

Product name: Indonesian Gum Rosin X / WW / WG

5.3 Advice for firefighters: No special measures required

5.4 Additional information: -

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment & emergency procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Minimize airborne dust and eliminate all fire/ignition sources. Clean up spill as soon as possible using procedures described below. Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment

6.2 Environmental precautions: Not special measures required

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

Small spill: move containers from spill area. Do not use air hoses for cleaning. Minimize dry sweeping to avoid generation of dust clouds. Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Use spark-proof tools and explosion-proof equipment. Vacuums with explosion-proof motors should be used. Dispose of via a licensed waste disposal contractor

Large spill: move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid creating dusty conditions and prevent wind dispersal. Do not use air hoses for cleaning. Minimize dry sweeping to avoid generation of dust clouds.

Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Use spark-proof tools and explosion-proof equipment. Vacuums with explosion-proof motors should be used. Dispose of via a licensed waste disposal contractor

6.4 Reference to other sections: 7, 8 & 13

6.5 Additional information: -

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

according to the Regulations (EC) 1907/2006 & 1272/2008

Version number 4 Page 5 of 11

Product name: Indonesian Gum Rosin X / WW / WG

7.2 Conditions for safe storage, including any incompatibility

Technical measures and storage conditions: keep products in a dried and well ventilated room Packaging material: -

Requirements for storage rooms and vessels: keep container tightly sealed Further information on storage conditions: -

7.3 Specific end use(s)

Recommendations: -

Industrial sector specific solutions: -

Section 8: Exposure controls / personal protection

8.1 Control parameters:

Endpoint-specific DNEL values for Rosin: Worker

	Local	Systemic
Dermal	NC	25 mg/kg bw/day
Inhalation	NC	176.32 mg/m ³

Endpoint-specific DNEL values for Rosin: General Population

	Local	Systemic
Oral	NC	15 mg/kg bw/day
Dermal	NC	15 mg/kg bw/day
Inhalation	NC	52.174 mg/m ³

NC: not calculated

PNEC

PNEC aqua (freshwater): 0.005 mg/L
PNEC aqua (marine water): 0.0005 mg/L
PNEC aqua (intermittent releases)
PNEC sediment (freshwater): 108 mg/kg sediment dw
PNEC sediment (marine water): 10.8 mg/kg sediment dw
PNEC soil: 21.4 mg/kg soil dw
PNEC STP: 1000 mg/L

8.2 Exposure control

Appropriate engineering measures: 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

according to the Regulations (EC) 1907/2006 & 1272/2008

Version number 4 Page 6 of 11

Product name: Indonesian Gum Rosin X / WW / WG

Personal protection

- Eyes and face protection: safety goggles



- Hands/body protection: adapted gloves, lab coat

- Respiratory protection: dust respirator

- Thermal hazards: -

8.3 Environmental exposure controls:

Product related measures to prevent exposure: Instruction measures to prevent exposure: do NOT wash away into sewer
Organizational measures to prevent exposure: Technical measures to prevent exposure: -

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 ₂ O=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 Kow 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: -

according to the Regulations (EC) 1907/2006 & 1272/2008

Version number 4 Page 7 of 11

Product name: Indonesian Gum Rosin X / WW / WG

Section 10: Stability and reactivity

10.1 Reactivity: -

10.2 Chemical stability: Stable under normal conditions

10.3 Possible hazardous reaction: No dangerous reactions known

10.4 Conditions to avoid: -

10.5 Incompatible materials: Avoid contact with strong oxidizing compounds

10.6 Hazardous decomposition products: Thermal decomposition products include formaldehyde, acetone, methanol, aldehydes, carbon dioxide, carbon monoxide, methane, ethane and acids

Section 11: Toxicological information

11.1 Toxicokinetics, metabolism and

distribution Non human toxicological data: not available Human toxicological data: not available

11.2 Information on toxicological effects

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 irritating Serious eye damage/irritation: Not irritating Respiratory or skin sensitization: Not sensitizing

Germ cell mutagenicity: Not mutagenic Carcinogenicity: Not carcinogenic Reproductive toxicity: Not classified STOT-single exposure: Not classified STOT-repeated exposure: Not classified

Aspiration hazard: Not available

Further information (epidemiology, teratogenicity, neurotoxicity, toxicologically synergistic products): Not available

Material Safety Data Sheet according to the Regulations (EC) 1907/2006 & 1272/2008

Version number 4 Page 8 of 11

Product name: Indonesian Gum Rosin X / WW / WG

Section 12: Ecological information

12.1 Ecotoxicity:

Method	Results	Reference
SHORT TERM EFFECTS ON FISH (FRESHWA	TER)	
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 INVER	TEBRATES (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 PL	ANTS (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: readily biodegradable
- **12.3 Bioaccumulative potential:** Aquatic BCF of rosin is 56.23 L/kgwwt (QSAR estimation)

according to the Regulations (EC) 1907/2006 & 1272/2008

Version number 4 Page 9 of 11

Product name: Indonesian Gum Rosin X / WW / WG

12.4 Mobility in soil: Not available

12.5 Results PBT & vPvB assessment: A detailed analysis of the Persistence, Bioaccumulation and Toxicity has been brought together into a clear conclusion on whether rosin is not a PBT/vPvB Substance

12.6 Other adverse effects: -

Section 13: Disposal considerations

13.1 Waste treatment methods

Product / Packaging disposal: -

Waste codes / waste designations according to EWC / AVV: 16 03 05* - organic wastes

containingdangerous substances

Waste treatment relevant information: -

Sewage disposal relevant information: do NOT wash away

intosewer Other disposal recommendations: -

13.2 Additional information: Recycle any unused portion of the material for its approved use or return it to the manufacturer or supplier. Ultimate disposal of the chemical must consider: the material's impact on air quality; potential migration in soil or water; effects on animal, aquatic, and plant life; and conformance with environmental and public health regulations

Section 14: Transport information

UN number: Not classified as dangerous by the legislation of transportation of dangerous products

UN proper shipping name: Not applicable

Transport hazard class(es) and labels: Not applicable

Classification code: Not applicable Packing group: Not applicable

Environmental hazards: Not applicable Special precautions for user: Not applicable

Transport in bulk according to annex II MARPOL 73/78 6 IBC Code: Not applicable

Section 15: Regulatory information

15.1 Safety, health and environmental reg./leg. specific for the substance or mixture, authorization and/ or restrictions on use

Authorization: Not applicable Restriction: Not applicable

Other EU regulations: Not applicable Other national regulations: Not applicable

15.2 Chemical Safety Report: A Chemical Safety Assessment has been carried ou

according to the Regulations (EC) 1907/2006 & 1272/2008

Version number 4 Page 10 of 11

Product name: Indonesian Gum Rosin X / WW / WG

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 Indications of changes: General rewriting according to Regulations (EC) 1907/2006 & 1272/2008

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
EEC	European Economic Community	LC50	Lethal Concentration 50
EWC	European Waste Catalogue Code	LD50	Lethal Dose 50
IDLH	Immediately Dangerous to Life or Health	MARPOL	MARine POLlution
IBC	International Bulk Chemical	Koc	Soil/Water Partition Coefficient
NIOSH	National Institute of Occupational Safety and Health	Kow	Octanol/Water Partition Coefficient
OECD	Organization for Economic Co-operation and	N°EC	European Commission number
	Development		•

16.3 Key literature references and sources of data

http://bgia-online.hvbg.de/ http://ecb.jrc.ec.europa.eu/esis/

http://www.echemportal.org/

http://www.cdc.gov/ http://toxnet.nlm.nih.gov/ http://www.ineris.fr/substances/fr/

16.4Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008: Classification procedure: on basis of test data

16.5 Relevant R-phrases and/or H-statements (number and full text)

According to Regulation (EC) No 1272/2008

Xi Irritant

R43 may cause sensitisation by skin contact S2 keep out of the reach of children

S24 avoid contact with skin

S37 wear suitable gloves

according to the Regulations (EC) 1907/2006 & 1272/2008

Version number 4 Revision: 22.10.2023 Page 11 of 11

Product name: Indonesian Gum Rosin X / WW / WG

According to Directives 67/548/EEC

H317

P261

P272

P280

P302+P352

P333+P313

P321

P363

P501

Training advice: -

Further information:

Department issuing MSDS: Luxcontrol S.A., 1, Avenue des Terres Rouges, L-4004 Esch-sur-Alzette, Luxembourg