



Material Safety Data Sheet

Rosin

Edition: 01/11/2017

1) Identification of substance/preparation and of the company undertaking

Material	Rosin
Chemical Name	Abietic Acids
Synonyms	Colophony, Kolophonium, Pine Rosin, Gum Rosin, Wood Rosin
CAS No	8050-09-7
EINECS No	232-475-7
REACH Registration No	01-2119480418-32-xxxx
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1.2) Relevant Identified Uses

Friction Aid, Grip Aid, Solder Flux, Electrical Insulation, Non-Draining Compound, Coatings, Emulsion, Adhesives, Depilatory Wax, Clay Pigeon, Polish, Sealants, Dental Cement, Pigment Manufacture

2) Hazards Identification

2.1) Classification of the substance or mixture

According to 1272/2008/EC Regulation

Skin sensitizer Category 1

2.2) Label Elements

Pictogram



Signal word: warning

Hazard statements:

H317- May cause an allergic skin reaction

Precautionary statements:

P210- Keep away from heat/sparks/open flames/hot surfaces. No smoking

P261- Avoid breathing dust/fume

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

P363- Wash contaminated clothing before reuse

P501- Dispose contents/container according to the end user disposal procedure

According to 67/548/EC Regulation

Xi- Irritant Risk Phrase



Safety Phrases:

S 24- Avoid contact with skin

S 37- Wear suitable gloves

3) Composition

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical name/classification	Concentration
CAS: 8050-09-7	Rosin ATP CLP00	100%
EC: 232-475-7	Directive 67/548/EC Xi: R43 	
Index: 650-015-7	Regulation 1272/2008 Skin sens1: H317- Warning 	

4) First Aid Measures

4.1) Description of first aid measures

Product in eyes	Immediately flood eyes with plenty of low pressure water for at least 10 minutes, holding eye open. Remove contact lenses. Obtain medical assistance if redness develops or persists.
Product on skin	Wash skin thoroughly with soap and water. Obtain medical help if redness develops.
Hot product on skin	Small splashes should be cooled with cold water. When cold, the burn area should then be treated and when this process is complete the solid resin can be removed. Where larger splashes are encountered, cool the skin with water and seek medical help.
Product ingested	Wash out mouth with water. Do not induce vomiting. Obtain medical attention if a large amount has been swallowed.
Product inhaled	Remove from exposure, keep warm and at rest. Obtain medical attention if breathing difficulty occurs.

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

Acute and delayed effects are indicated in sections 2 and 11.

5) Fire Fighting

5.1) Extinguishing Media

Suitable extinguishing media	Carbon dioxide, dry chemical or water fog
Unsuitable extinguishing media	Water

5.2) Special hazards arising from the substance or mixture

Protective equipment	Self-contained breathing apparatus needed for fires in enclosed areas
Other information	Rosin dust is a severe explosion hazard in air; avoid dispersing dust in air. Minimum exposable concentration: 15g/m ³ . Risk of spark ignition prevented by reducing oxygen concentration below 17% by dilution with carbon dioxide.

6) Accidental Release Measures

6.1) Personal Precautions

Avoid breathing dust. Wear a dust respirator, gloves, chemical goggles and overalls.

6.2) Environmental Precautions

Avoid dispersion of the product

6.3) Clean-up Methods

Sweep up or otherwise recover the product and remove to a safe environment

Additional advice Avoid propagating more dust than is absolutely avoidable

7) Handling/Storage

7.1) Precautions for safe handling

Personal protection Wear protective clothing and dust mask

Dust Avoid processes that generate excessive dust

7.2) Conditions for safe storage

Suitable storage container Galvanised iron drums or paper stacks internally coated with silicone or with a polypropylene liner

Handling/storage precautions Explosion proof ventilation adequate to meet any dust conditions at room temperature. Store in cool, well ventilated conditions.
Explosion proof electrical services should be used where dusty conditions prevail.
Prevent static sparks.
Product can spontaneously heat during storage- exercise care.
Avoid placing this material next to, or in contact with, oxidising agents.

7.3) Specific end use(s)

Except for the instructions already specified it is not necessary to provide special recommendations regarding uses of this product.

8) Exposure Controls

8.1) Control parameters

Substances whose occupational exposure limits have been monitored in the work environment

Nuisance dust: Inhalable dust 10mg/m³ Respirable dust: 4mg/m³

DNEL workers

Acute / short-term exposure - systemic effects

Dermal DN(M)EL No-threshold effect and/or no dose-response information available

Inhalation DN(M)EL No-threshold effect and/or no dose-response information available

Acute / short-term exposure - local effects

Dermal DN(M)EL No-threshold effect and/or no dose-response information available

Long-term exposure - systemic effects

Dermal DN(M)EL DNEL (Derived No Effect Level) = 17 mg/kg bw/day

Inhalation DN(M)EL DNEL (Derived No Effect Level) = 117 mg/m³

Long-term exposure - local effects

Dermal DN(M)EL No-threshold effect and/or no dose-response information available

Inhalation DN(M)EL No-threshold effect and/or no dose-response information available

General population

Acute / short-term exposure - systemic effects

Dermal DN(M)EL No-threshold effect and/or no dose-response information available

Inhalation DN(M)EL No-threshold effect and/or no dose-response information available

Oral DN(M)EL No-threshold effect and/or no dose-response information available

Acute / short-term exposure - local effects

Dermal DN(M)EL No-threshold effect and/or no dose-response information available

Inhalation DN(M)EL No-threshold effect and/or no dose-response information available

Long-term exposure - systemic effects

Dermal DN(M)EL DNEL (Derived No Effect Level) = 10mg/kg bw/day

Inhalation DN(M)EL DNEL (Derived No Effect Level) = 35 mg/m³

Oral DN(M)ELD NEL (Derived No Effect Level) = 10 mg/kg bw/day

Long-term exposure - local effects

Dermal DN(M)EL No-threshold effect and/or no dose-response information available

Inhalation DN(M)EL No-threshold effect and/or no dose-response information available

Components to control with biological restricted values:

PNEC

Freshwater 0,0016 mg/L

Freshwater sediments 0,007 mg/kg sediment dw

Marine water 0,00016 mg/L

Marine sediments 0,0007 mg/kg sediment dw

Oral No bioaccumulation potential

STP 1000 mg/L

Soil 0,0045 mg/kg soil dw

8.2 Exposure controls

Appropriated technical control measures Dust extraction pointed to local of formation.

Personal protection equipment

Respiratory protection: Wear respiratory protection against organic vapours.

Hand protection Wear appropriate gloves to prevent skin exposure.

Eye/face protection Wear chemical splash goggles conforming to EN 166.

Skin protection Wear appropriate clothing to prevent skin

exposure.

Environmental exposure control

Organizational measures

Apply general preventive measures in chemical safe handling.

9) Physical/Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Water-white to dark brown vitreous solid
Odour	Characteristic (slight turpentine odour)
pH	- N/A
Melting Point/(Ring & Ball)	65 - 90°C
Flash Point	>205°C
Auto ignition temperature	>390°C
Explosive Properties	Severe dust explosion hazard in air
Oxidising Properties	None
Vapour Pressure	<0.1hPa
Solubility- Water	~1.09
Solubility- Solvent	Insoluble
Other Properties	Aromatic hydrocarbons, chlorinated hydrocarbons, alcohols, ketones. Unsaponifiable matter 8% max

10) Stability/Reactivity

10.1) Reactivity

No hazardous reactions are expected

10.2) Chemical stability

Stability	Substance is stable at normal temperature and pressure.
Oxidation	Substance is oxidised by atmospheric oxygen.

10.4) Conditions to Avoid

Generation of dust in air

10.5) Incompatible Materials

Oxidising agents

10.6) Hazardous Decomposition Products

Thermal oxidation may result in formation of formaldehyde and carbon monoxide

11) Toxicological Info

11.1) Information on toxicological effects

Oral acute toxicity

Method	OECD Guideline 420 (Acute Oral Toxicity) Speciesrat (male and female)
Route of administration	oral, gavage

Does	single dose
Conclusion	LD50> 2000 mg/kg similar substance. The classification criteria for oral acute toxicity or specific target organ toxicity by acute exposure were not met, according to GHS, CLP and 67/548/EC. Analysis based on acquired data.
Inhalation	Based on available data, the classification was not met

Dermal acute toxicity

Method	OECD Guideline 402 (Acute Dermal Toxicity) / EU Method B.3 (Acute Toxicity (Dermal))
Species	rabbit (male and female)
Route of administration	dermal, topic
Doses	2000mg/kg bw
Period of exposure	24 hours
Conclusion	LD50>2000 mg/kg (rabbit, male/female), similar substance Classification criteria for dermal acute toxicity, irritation or skin corrosion or for single target organ toxicity by acute exposure, based on GHS, CLP and 67/548/EC, were met. Analysis based on acquired data for similar substance.

Irritation and skin corrosion

Classification not determined due to lack of data.

Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion) / EU Method B.4
Species	rabbit
Route of administration	dermal, semioclusive
Doses	0.5g
Period of exposure	4hrs
Conclusion	during tests no edema was observed. Classification criteria for dermal acute toxicity, irritation or skin corrosion or for single target organ toxicity by acute exposure, based on GHS, CLP and 67/548/EC, were not met. Analysis based on acquired data.

Eye irritation and damage

Method:	OECD Guideline 405 (Acute Eye Irritation / Corrosion), equivalent method to
Species	rabbit
Route of administration	cornea, topic
Doses	100mg/eye/specimen
Period of exposure	single dose
Conclusion	slight reversible redness of the conjunctivae was observed on some animals Classification criteria for eye irritating, based on GHS, CLP and 67/548/EC, were not met. Analysis based on acquired data.

Skin sensitization

Method	OECD Guideline 429 (LLNA), method equivalent to
Species	rat (female)
Conclusion	Based on study results, rosin is not a moderate or strong skin sensitizer to rats. Rosin did not show any potential to acts as

skin sensitizer. The classification criteria for skin sensitizing, based on GHS, CLP and 67/548/EC, were not met. Analysis based on acquired data.

Sensitizing effects by inhalation

May cause skin allergic response, respectively

Mutagenicity

Method

OECD Guideline 471 (Bacterial Reverse Mutation Assay); EU Method B.13/14 (Mutagenicity - Reverse Mutation Test Using Bacteria)

Conclusion

Absence of genotoxic and mutagenic effects. Classification criteria were not met. Analysis based on acquired data. Based on the data available, the classification was not met.

Carcinogenicity

Toxicity for reproduction

Method:

OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test) NOAEL reproductive = 3000 ppm (nominal) (male and female) Not determined on F1 generation.

Conclusion:

Criteria were not met and the product is not classified for Developmental or Reproductive Toxicity according to GHS, CLP and 67/548/EC. Analysis based on acquired data.

Long exposure effects

No reliable data available.

STOT - single exposure

Based on available data, the classification was not met.

STOT - repeated exposure

Based on available data, the classification was not met.

Respiratory risks:

Based on available data, the classification was not met.

12) Ecological Information

12.1) Toxicity

Short-term toxicity

Fish

96h, LL50 < 10 mg/l (nominal, based on mortality)
Brachydanio rerio, OECD 203
48h, NOELr = 750 mg/l(nominal, based on mobility)

Aquatic invertebrates

48h, EL50 = 911 mg/l (nominal, based on mobility)
Daphnia magna, OECD 202
72h, NOELr ≥ 1000 mg/l (nominal, similar substance, based on growth rate and biomass)

Algae and aquatic plants

72h, LL50 = 1000 mg/l (nominal, similar substance, based on growth rate and biomass) Selenastrum capricornutum, OECD 201

Other organisms

Not determined

Long-term toxicity

Fish	Not determined
Aquatic invertebrates	Not determined
Algae and aquatic plants	Not determined
Other organisms	Not determined

12.2 Persistency and biodegradability

Abiotic degradability	Not determined
Photochemical and physico-chemical elimination	Not determined
Biodegradation	Substance is readily biodegradable. 71% degradation after 28 days OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

12.3 Bioaccumulation potential

Partition coefficient n-octanol/water (log Kow)	refer to section 9
Bioconcentration factor (BCF)	56,23 l/kg wet-wt (QSAR, regression based m.)
Bioaccumulation factor (BAF)	694 000 (Arnot-Gobas upper trophic m.)

12.4 Soil mobility

Partition coefficient soil/water (Koc) log Koc = 3,7289 (QSAR, estimated from log Kow)

12.5 PBT evaluation results

Product does not fulfil PBT or vPvB criteria.

12.6 Other adverse effects	-
Additional information	-

13) Disposal Consideration

13.1 Waste treatment methods

Recommendation	Dispose of waste to a licensed disposal site in accordance with the requirements of the local Waste Disposal Authority. Do not allow into drains, sewers and water courses
Contaminated packaging	Used containers should be recycled after dust removal

14) Transport Information

Not classified in accordance with ADR/RID, IMDG and IATA

15) Regulatory Information

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

Classification acc. to

Regulation (CE) n. 1005/2009	Not applicable
Regulation (CE) n. 1907/2006	

- Annex XVII	Not restricted substance.
Directive n. 2003/53/EC	Not applicable.
Directive n. 2003/105/CE	Substance not classified in the scope of the directive.
Regulation (CE) n. 850/2004	Not applicable.
The German Federal Water Management Act	Classe WGK 1

16) Other Information

Abbreviations and acronyms

ADR: International Carriage of Goods by Road

IMDG: International Maritime Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

KOC: Partition Coefficient of organic carbon

OECD: Organisation for Economic Cooperation Development

NOEL: No observed effect level

STOT: Specific Target Organ Toxicity

QSR: Quantitative Structure Activity Relationship

LLNA: Local Lymph Node Assay

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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