LAWRENCE
ART SUPPLIES SINCE 1859

36 KINGSTHORPE ROAD
HOVE
BN3 5HR
Tel 01273 260 260
Fax 01273 260 270
E-mail artbox@lawrence.co.uk

MATERIAL SAFETY DATA SHEET

Edition: July 2016

Aquatint Resin

(TNL 1737 - 17382)

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

Product name:	Aquatint Resin
Product code:	1737, 17372, 17373
REACH registered name:	Rosin
REACH registered No:	01-2119480418-32
CAS number:	8050-09-7
EC number:	232-475-7

Relevant identified uses of the substance or mixture

Chemical, Cosmetic and Industrial as a raw material for further processing

Company name:	Lawrence Art Supplies 36 Kingsthorpe Road Hove BN3 5HR
Tel:	01273 260260
Fax:	01273 260270
Email:	artbox@lawrence.co.uk
Emergency Number:	Mon - Thurs 9am-5pm, Fri 9am - 4pm (not a poison centre) 01273 260260

2. Hazards identification

2.1 Classification of the Substance of Mixture:

Skin sensitization (category 1) – May cause an allergic reaction
Combustible Dust - May form combustible dust concentrations in air.

2.2 Label Elements:

Signal Word: Warning

Hazard pictogram:

Hazard statements: H317: May cause an allergic skin reaction

Precautionary statements:
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P234 Keep only in original container.
P243 Take precautionary measures against static discharge.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray
P262 Do not get in eyes, on skin, or on clothing.

P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/clothing/eye protection/face protection
P284 In case of inadequate ventilation wear respiratory protection.
P301+P312 IF SWALLOWED: Call a doctor if you feel unwell.
P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
P302+P352: If on skin, wash with plenty of water
P304+P312 IF INHALED: Call a doctor if you feel unwell.
P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/attention if you feel unwell.
P333+P313: If skin irritation or rash occurs: Get medical attention
P363 Wash contaminated clothing before reuse.
P402+P404 Store in a dry place. Store in a closed container.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.

Information pertaining to particular dangers for man and environment:

DANGER! HOT MOLTEN product:
Burns may cause irreversible eye injury and blindness. Causes skin burns. Inhalation of smoke or fumes may cause throat discomfort, coughing, or breathing difficulty. Product may burn if ignited.

WARNING!
Solid product at ambient temperature. Static charges generated by emptying package in or near flammable vapours may cause a flash fire. May form flammable dust-air mixtures. May cause eye irritation by mechanical abrasion. May cause skin irritation by mechanical abrasion. Inhalation of dust may cause respiratory tract irritation. May cause allergic skin reaction (sensitization) in susceptible individuals.

POTENTIAL HEALTH EFFECTS
Prolonged exposure to smoke or fumes generated by heating this product may cause respiratory irritation with throat discomfort, coughing, or breathing difficulty. Repeated exposure may lead to respiratory sensitization (asthma) in susceptible individuals.
Refer to SDS Section 8, Exposure Controls/Personal Protection, for further information.
Refer to Section 5 for Hazardous Combustion Products, and Section 10 for Hazardous Decomposition/ Hazardous Polymerization Products.

· Classification system:

· NFPA ratings (scale 0 - 4)

Health = 0
Fire = 1
Reactivity = 0

· HMIS-ratings (scale 0 - 4)

Health = 0
Fire = 1
Reactivity = 0

2.3 Other Hazards:

PBT: This product is not identified as a PBT/ vPvB Substance according to REACH Annex XIII.
Hot liquid may cause thermal burns.

3. Composition/information on ingredients

3.1 Substances

Substance name	CAS Number	EC Number	REACH Reg number	Index Number
Rosin	8050-09-7	232-475-7	01-2119480418-32	022-324-75-7

3.2 Additional information

If this product is heated or used at temperatures sufficient to produce smoke or fumes, refer to SDS Section 8, Exposure Controls/Personal Protection

This product is shipped and delivered as an ambient temperature SOLID or HOT MOLTEN liquid. THE HMIS HEALTH HAZARD RATING FOR THE HOT MOLTEN OR HOT LIQUID PRODUCT IS 3 SERIOUS. See SDS Section 2 for the HMIS health hazard rating for the product at ambient temperature.

When shipped at elevated temperatures and delivered in HOT MOLTEN or HOT LIQUID form, refer to SDS Sections 2, 4, 5, 7 and 8 for additional hazard information.

When shipped and delivered in solid form, this product is considered hazardous according to the OSHA Hazard Communication Standard 29CFR1910.1200 due to flammable dust potential.

4. First aid measures

4.1 Description of First Aid Measures

General information:	Remove contaminated/saturated clothing. In case of accident or illness seek medical advice immediately.
Inhalation:	Remove the affected person to fresh air, keep warm and rest. If recovery is not rapid, seek medical advice. In case of unconsciousness place patient stably in side position for transportation
Skin Contact:	HOT MOLTEN or HOT LIQUID product: Immediately cool skin burns with water and cold packs for at least 15 minutes. Do NOT put ice directly on the skin. Do NOT attempt to remove solidified resin from the skin as severe tissue damage may result. Get immediate medical attention. See Note to Physician. Solid Product: Wash the affected parts of the body with soap and water. No emergency measures are necessary but if adverse skin effects follow, seek medical advice. Wash clothing before reuse.
Eye Contact:	HOT MOLTEN product: Cool burns with plenty of low-pressure water. Get immediate medical attention. Solid product: Remove contact lenses. Flush eyes immediately with fresh water for at least 5 minutes while holding the eyelids open. No emergency measures are necessary but if adverse eye effects follow, seek medical advice.
Ingestion:	Do not induce vomiting. No emergency measures are necessary but if adverse health effects follow or large amounts are swallowed, seek medical advice.

Information for doctor:

For HOT MOLTEN or HOT LIQUID product: Material should not be forcibly removed from the skin. Mineral oil may be used to loosen and soften the material.

This product contains rosin or a rosin derivative. Rosin and some of its derivatives have been reported to cause an allergic skin reaction (sensitization) in susceptible individuals after repeated or prolonged skin contact.

Smoke or fumes generated by heating product may lead to respiratory sensitization (asthma) in susceptible individuals.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation:	High concentration of vapours may induce: Headache, nausea, dizziness. Irritant effect to the respiratory tract.
Skin Contact:	May cause slight irritation to the skin. Heated product may cause burns.
Eye Contact:	May cause slight irritation to eyes.
Ingestion:	May cause nausea.

4.3 Indication of any immediate medical attention and special treatment needed

In contact with or splashed by melted product, quickly cool area with water.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media:	Foam, Dry Chemical Powder, Carbon Dioxide.
Unsuitable extinguishing media:	Water.

Use fire fighting measures that suit the environment.

5.2 Special hazards arising from the substance or mixture

Slight flammability hazard when exposed to heat or flame. During a fire, toxic gases (Carbon Monoxide, Carbon Dioxide, nitrous gases, Alehydes, Carboxylic Acids) may be generated by thermal decomposition or combustion.

5.3 Advice for firefighters

Only suitably trained personnel should attempt to tackle fires. Breathing apparatus and protective clothing should be worn. Do not remain in the immediate vicinity without respiratory protective equipment and protective clothing. Apply water to HOT MOLTEN or HOT LIQUID resin fires from a safe, protected location to avoid body contact with hot resin. Cool containers with water to prevent rupture.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing. See section 8. Stop leak if safe to do so.
Remove sources of ignition.

For HOT MOLTEN or HOT LIQUID product: Wear protective equipment as required (see SDS Section 8). Contain spilled material and allow it to cool and solidify. Do NOT apply water. After solidification, clean up and place in suitable containers for use or disposal.

For SOLID product: Ventilate area. Avoid dust formation. If product is not contaminated, scoop into clean containers for use. If product is contaminated, scoop into containers, and dispose appropriately. In case of accidental spills or release, refer to Section 8, Personal Protective Equipment and General Hygiene Practices.

6.2 Environmental precautions

Water may be used to flush spills away from sources of ignition. Prevent spreading by damming. Do not allow the product to enter public drainage system or open water course. Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Containment:	Stop leak if safe to do so. Use damming system to prevent spreading. Pick up mechanically.
Cleaning up:	Use sand or active clay to absorb spilled substance and remove to containers for disposal. When in liquid state, cool and allow to solidify. Dispose of the collected material according to regulations.

6.4 Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section

7. Handling and storage

7.1 Precautions for safe handling

General advice:	Do not eat or drink in immediate vicinity. Wash hands after use. Remove any contaminated clothing before eating or drinking.
Recommendations:	For HOT MOLTEN or HOT LIQUID product: The molten product can cause severe burns. Use molten product in well ventilated areas. Use personal protective equipment as indicated in Section 8: Exposure Controls/Personal Protection. Handle in accordance with GMP and safety procedures. For SOLID product: Ground all equipment. Blanket vessel with inert gas when emptying bags where flammable vapours may be present. Ground operator and pour material slowly into conductive, grounded chute. For large bags (1000 lbs or greater) a ground cable MUST be attached to the bag ground connection.

Information about protection against explosions and fires:

Water contact with HOT MOLTEN or HOT LIQUID resin may result in foaming or spattering, which can cause eye or skin burns.
Avoid conditions that generate dust; product may form flammable dust-air mixtures.
Avoid emptying package in or near flammable vapours; static charges may cause flash fire.
Keep away from heat, flame, sparks and other ignition sources. Spontaneous heating may occur if stored in a non-ventilated area at elevated temperatures.

7.2 Conditions for safe storage including any incompatibilities

Keep material sealed, dry and out of direct sunlight. Avoid heat and ignition sources. Store in original containers or other high density polyethylene containers which are sealable and clearly labelled. Store in well-ventilated area at ambient temperatures. Keep container closed when not in use. Use oldest material first. Clean up spilled material immediately.

7.3 Specific end use(s)

No further relevant information available.

8. Exposure controls/personal protection

Additional information about design of technical systems:

Eyewash fountains and safety showers should be easily accessible.
If user operations generate dust or fumes: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Discharge from the ventilation system should comply with applicable air pollution control regulations.
Eliminate ignition sources and prevent build-up of static electrical charges.
Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning maintenance or repairs.
Keep area clean.
Product will burn.

8.1 Control Parameters

Components with limit values that require monitoring at the workplace: Not required.

TWA TLV (ACGIH):	No data available
DNEL:	No data available
PNEC:	No data available
PEL:	No data available
REL:	No data available

Additional Occupational Exposure Limit Values for possible hazards during processing: This product may present an inhalation health hazard if used under conditions that could generate dust or fumes. PARTICULATES (INSOLUBLE) NOT OTHERWISE SPECIFIED (PNOS): If used under conditions that generate particulates, the ACGIH TLV-TWA of 3 mg/m3 respirable fraction (10mg/m3 total) should be observed. ROSIN PYROLYSIS FUMES: If this product is heated to temperatures sufficient to produce

smoke or fumes, maintain exposure to resin acids to the lowest achievable concentration using recommended engineering controls and personal protective equipment.

8.2 Exposure Controls

General protective and hygienic measures:

Avoid contact with eyes, skin, and clothing. Avoid breathing dust or fumes. Handle in areas with adequate ventilation. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

Appropriate engineering measures:	Facilities storing or utilising this material should be equipped with an eyewash facility.
Eye protection:	Wear appropriate eye protection with side shields (EN166).
Hand protection:	Use impervious gloves (EN374). PVC is suitable for casual contact. If direct contact for more than 2 hours then Neoprene or nitrile gloves recommended.

Protective gloves

Body protection:	Appropriate protective clothing Personnel exposed to HOT MOLTEN or HOT LIQUID material should wear protective clothing that provides protection against thermal burns. Required Protective Equipment: a) Long sleeved protective shirt, long pants and work shoes; b) Hard hat and face shield; c) Long-cuff gloves (Gauntlet type extending beyond wrist); d) Lined rain suit with protective hood or shoulder shroud or e) Full aluminized or thermal suit with hood
Respiratory protection:	Inhalation of the vapour, fumes or mists should be avoided by safe working practices and good ventilation. Appropriate respiratory protection is required when exposure to airborne contaminants may exceed acceptable limits. Respirators should be selected and used in accordance with OSHA, Subpart I (29 CFR 1910.134) and manufacturers recommendation.
Thermal Hazards:	Thermal hazards only applicable when material is heated. Use appropriate heat resistant gloves.
Environmental Exposure Controls:	See sections 6, 7, 12 and 13.

9 Physical and chemical properties

9.1 Information on basic chemical and physical properties

Appearance:	Liquid (at elevated temperature) Solid (at ambient temperature)
Form:	Flakes/powder/lumps
Colour:	Brown
Odour:	Pine
percentage Volatile:	Negligible at 20°C
Specific Graviity:	1.22 @ 25°C
pH:	No data available
Softening point:	103-123°C
Initial boiling point/range:	>300°C
Flash point:	>150°C
Ignition temperature:	>200°C
Danger of explosion:	Product is not explosive. However, formation of explosive air/dust mixtures are possible.
Density:	No data available
Bulk density at 20 °C:	560 - 640 kg/m³
Solubility in Water at 20 °C:	0.13 g/l

9.2 Other information

No data available

10.Stability and reactivity

10.1 Reactivity

Not reactive under normal storage and handling conditions (see section 7). May react with strong oxidising agents, especially at high temperatures.

10.2 Chemical stability

Stable under normal storage and handling conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions are expected to occur under normal storage and handling conditions.

10.4 Conditions to avoid

Extremes of temperature (preferably, store between 5 and 39°C). The product is combustible when heated >200°C.

10.5 Incompatible materials

May react with strong oxidants (e.g. chlorates, peroxides).

10.6 Hazardous decomposition products

Thermal decomposition or incomplete combustion may produce carbon monoxide, nitrous gases and irritating fumes. Refer to section 5.

11. Toxicological information

11.1 Information on toxicological effects

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

Acute toxicity

Oral: LD/LC50 values that are relevant for classification:
PRODUCT/SIMILAR PRODUCT Ninety-day oral subacute no effect level (rat): NOEL = 0.2-1.0% in diet. Signs of toxicity included refusal to eat, weight loss and death at highest level, depressed weight gain and liver enlargement.
Two-year chronic oral no effect level (rat, dog): NOEL = 0.05% in diet. Signs of toxicity included temporary weight depression and liver enlargement in both species

Oral	LD50	>2500mg/kg (guinea pig)
		>3000mg/kg (mouse)
		>4000mg/kg (rat)

Inhalation: No data available

Skin corrosion/irritation Not classified as corrosive/irritant to skin - based on available data, the classification criteria are not met.

Serious eye damage/eye irritation The fine particles and powder should be regarded as an inert, nuisance dust. Can cause slight to moderate irritation.

Dermal	LD50	>2500mg/kg (rabbit)

Respiratory or skin sensitisation May cause an allergic skin reaction or irritation. Smoke or fumes generated by heating may lead to respiratory sensitization (asthma) in susceptible individuals. Rosin and some rosin derivatives have been reported to cause allergic skin reaction (sensitization) in susceptible individuals after repeated or prolonged contact

Germ cell mutagenicity Not classified as a germ cell mutagenic or carcinogenic - based on available data, the classification criteria are not met.

Reproductive toxicity Not classified as a Reproductive Toxicant - based on available data, the classification criteria are not met.

Carcinogenic categories

· **IARC** (International Agency for Research on Cancer) Substance is not listed.

· **NTP** (National Toxicology Program) Substance is not listed.

· **OSHA-Ca** (Occupational Safety & Health Administration) Substance is not listed.

> **Specific target organ toxicity – single exposure**
Not classified as a specific target organ toxicant (single exposure)

> **Specific target organ toxicity – repeated exposure**
Not classified as a specific target organ toxicant (repeated exposure)

Aspiration hazard Not classified as presenting an aspiration hazard - based on available data, the classification criteria are not met.

Likely routes of exposure

Skin/eye exposure – may cause an allergic reaction.

Symptoms related to the physical, chemical and toxicological characteristics

> **If swallowed**
Diarrhoea, gastrointestinal complaints

> **If inhaled**
No data available

> **If on skin**
No data available

Delayed and chronic effects from short and long-term exposure
No data available

Other information
No data available

12. Ecological information

12.1 Toxicity

Aquatic toxicity:

Acute 96-hour LL50 (Fathead minnow): > 1000 mg/l.
Acute 48-hour EL50 (Daphnia magna): 911 mg/l. NOEL: 750 mg/l. Algae growth inhibition test (72-hour EL50): > 1000 mg/l

12.2 Persistence and degradability

Insoluble in water – can be separated from water in suitable effluent treatment plants. Based upon data from this or similar materials, this product cannot be regarded as readily biodegradable; however, it may be slowly biodegradable.

12.3 Bioaccumulation potential

No data available

12.4 Mobility in soil

Non-volatile and absorption into soil solid phase not expected.

12.5 Results of PBT & vPvB assessment

Not identified as a PBT/ vPvB Substance according to REACH Annex XIII.

12.6 Other adverse effects

No data available

13. Disposal considerations

13.1 Waste treatment methods

For SOLID and HOT MOLTEN product that has been cooled and solidified:
Landfilling in a permitted solid or hazardous waste facility is recommended. Handling, transportation, and disposal of material should be conducted in a manner to prevent a nuisance dust hazard. Transport to authorised waste location, or incinerate under controlled conditions (EU Directives 2000/76/EC and 1999/31/EC apply). Fully containerize the material before handling, and protect from exposure to the outdoors. Ensure there are no restrictions on disposing of bulk or semi-bulk quantities of waste material. Disposal should be in accordance with all Federal, State and local regulations. Treat in accordance with EU directive 2008/98/EC. Do not dispose to drains or sewage systems.

14. Transport information

14.1 UN number

Not classified

14.2 UN Proper shipping name

Not Classified

14.3 Transport Hazard Class(es)

Not Classified unless in hot molten or hot liquid state.

14.4 Packing Group

Not Classified

14.5 Environmental Hazards

None

14.6 Special Precautions for user

None

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

Not classified

15. Regulatory information

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

EU Regulations:	Regulation [EC] 1272/2008 including amendments Regulation [EC] 1907/2006 including amendments (EC 2015/830)
Sara:	Section 355 (extremely hazardous substances): Substance is not listed. Section 313 (Specific toxic chemical listings): This product does not contain any chemicals subject to reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization Act and 40CFR372.
SECTIONS 302/304:	This product is not an Extremely Hazardous Substance subject to reporting under 40CFR355.
SECTION 311 AND 312	HC-1: Acute health hazard HC-3: Fire hazard
CERCLA	This product does not contain any chemicals subject to reporting as a CERCLA Hazardous Substance under 40CFR302.4.
RCRA	This product is not a hazardous waste as listed in 40CFR261.33. It does not exhibit any of the hazardous characteristics listed in 40CFR261, Subpart C.

TSCA (Toxic Substances Control Act): Substance is listed.

Proposition 65

Chemicals known to cause cancer: Substance is not listed.

Chemicals known to cause reproductive toxicity for females: Substance is not listed.

Chemicals known to cause reproductive toxicity for males: Substance is not listed.

Chemicals known to cause developmental toxicity: Substance is not listed.

Carcinogenic categories

EPA (Environmental Protection Agency) Substance is not listed.

TLV (Threshold Limit Value established by ACGIH) Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.

Canadian substance listings:

Canadian Domestic Substances List (DSL) Substance is listed.

GHS label elements The substance is classified and labelled according to the Globally Harmonized System (GHS).

15.2 Chemical Safety Assessment

The supplier has not performed a chemical safety assessment of this substance.

16. Other information

Indication of changes:

All sections revised according to Regulation [EC] No 1272/2008 [CLP] in preparation for the 1 June 2015 deadline.
V2 – REACH information updated and additional product name added (section 1)

Abbreviations & Acronyms:

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS No:	Chemical Abstract Service number
CLP:	Classification Labelling and Packaging Regulation
DNEL:	Derived No Effect Level
DOT:	US Department of Transportation
EC:	European Commission
EC No:	European Chemical Number – EINECS – ELINCS
ECHA:	European Chemical Agency
EINECS:	European Inventory of Existing Commercial Chemical Substances
ELINCS:	European List of Notified Chemical Substances ES: Exposure Scenario
HMIS:	Hazardous Materials Identification System (USA)
IATA:	International Air Transport Association
LD50:	Median Lethal Dose
LC50:	Median Lethal Concentration
NFPA:	National Fire Protection Association (USA)
PBT:	Persistent, Bioaccumulative and Toxic
vPvB:	very Persistent and very Bioaccumulative
PEL:	Permissible Exposure Limit
PNEC:	Predicted No Effect Level
REACH:	Registration, Evaluation, Authorisation & restriction of Chemicals
REL:	Recommended Exposure Limit
TLV:	Threshold Limit Value
TWA:	Time Weighted Average

DISCLAIMER: The information and recommendations contained in this Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the SDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.