Safety Data Sheet
Gum Turpentine

SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Product name:	**GUM TURPENTINE**
EC Number:	**932-349-8**
CAS number:	**8006-64-2**
REACH Registration number:	**01-2119553060-53-XXXX**
CLP Notification reference number:	**02-2119494464-29-0000**

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

1.2.1 Relevant identified uses: **Fragrance/solvent**

1.2.2 Uses advised against: **None**

1.3 Details of the supplier of the SDS

Manufacturer/Supplier	**Michael Harding Art Formulas LTD**
Address:	**Unit K Springvale Ind Est** **Cwmbran** **NP44 5BE**
Telephone number:	**01633 484700**
E-mail:	**accounts@michaelharding.co.uk**

1.4 Emergency telephone number: **01633 484700 Opening Hours 08:00-16:30 Mon-Thur and 08:00-15:30 Friday**

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP/GHS)

Flam. Liq. 3	**H226 Flammable liquid and vapour**
Acute Tox. 4	**H302 Harmful if swallowed**
	H312 Harmful in contact with skin
	H 332 Harmful if inhaled
Asp. Tox. 1	**H304 May be fatal if swallowed and enters airways**
Skin Mild Irrit. 3	**H315 Causes skin irritation**
Eye Irrit 2A	**H319 Causes serious eye irritation**
Skin Sens. 1B	**H317 May cause an allergic skin reaction**
Aquatic Chronic 2	**H411 Toxic to aquatic life with long lasting effects**

2.1.2 Classification according to Directive 67/548/EEC

Symbols:	**Flammable**
Xn	**Harmful**
N	**Dangerous for the environment**
Content:	**Gum turpentine**

R-phrases:

R10	**Flammable**
R20/21/22	**Harmful by inhalation, in contact with skin and if swallowed.**
R36/38	**Irritating to eyes and skin**
R43	**May cause sensitisation by skin contact**
R51/53	**Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment**
R65	**Harmful: may cause lung damage if swallowed**

SECTION 2. HAZARDS IDENTIFICATION (cont.)

2.1.3 Additional information:

None **2.2 Label elements**

Labelling according to Regulation (EC) No 1272/2008 (CLP/GHS)

Product identifier: **Gum turpentine**
Index No.: **650-002-00-6**

Hazard pictograms:

Signal word: **Danger**

Hazard statements:

H226	**Flammable liquid and vapour**
H302	**Harmful if swallowed**
H304	**May be fatal if swallowed and enters airways**
H312	**Harmful in contact with skin**
H315	**Causes skin irritation**
H317	**May cause an allergic skin reaction**
H319	**Causes serious eye irritation**
H332	**Harmful if inhaled**
H411	**Toxic to aquatic life with long lasting effects**

Precautionary statements:

P260	**Do not breathe dust/fume/gas/mist/vapours/spray.**
P273	**Avoid release to the environment.**
P280	**Wear protective gloves/protective clothing/eye protection/face protection**
P301+P310	**IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician**
P331	**DO NOT induce vomiting**
P302+P353+P361:	**IF ON SKIN: Wash with plenty of soap and water**
P305+P351+P338:	**IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.**
P333+P313	**If skin irritation or rash occurs: Get medical advice/attention**
P370+P378	**In case of fire: Use ABC powder extinguisher.**
P501	**Dispose of contents/container to combustion or in compliance with the Environmental Protection (Duty of Care) Regulations 1991.**

2.3 Other hazards

Environmental hazard: **See section 12**
Pressure injection: **Injection of all products will cause severe internal damage if not properly treated.**
Substance does not meet the criteria for vPvB according to Regulation (EC) No. 1207/2006, Annex XIII

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Product identifier type	Identifier No.	Identification name	Weight % content or range	EC Number
CAS No.	8006-64-2	Turpentine,oil IUPAC Name: Not available	90-100%	932-349-8

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 First Aid instructions

Inhalation: **If excessive, remove to fresh air and obtain medical advice immediately.**
Skin contact: **Wash with soap and water. Remove immediately any contaminated clothing.**
Eye contact: **Flush with water for at least 15 minutes.**
Ingestion: **Seek medical assistance immediately. Do not induce vomiting.**
Pressure injection: **Even if the injury appears minor, seek immediate medical attention.**

IF ANY IRRITATION PERSISTS, SEEK MEDICAL ATTENTION

Notes for the doctor: **None**

SECTION 4. FIRST AID MEASURES (cont.)

4.1.2 Advice:
(a) Immediate medical attention is required and, if delayed, effects can be expected after exposure.
(b) Movement of the exposed individual from the area to fresh air is recommended
(c) Removal of contaminated clothing and shoes from the individual is recommended
(d) Personal protective equipment for first aid responders is recommended

4.2 Most important symptoms and effects, both acute and delayed

Acute (short term)	**contact can irritate the skin and eyes**
Chronic (long term)	**if an allergic reaction occurs, low future exposure may cause itching and skin rash**

4.3 Indication of immediate medical attention and special treatment needed
If symptoms persist, seek medical attention Eyewash facilities should be available

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media:
Dry chemical powder, alcohol resistant foam or CO^2.

Unsuitable extinguishing media:
Water

5.2 Special hazards arising from the substance
Hazardous decomposition products:
Burning generates CO, CO^2 and acrid smoke.

Combustible vapours heavier than air

Can form explosive mixtures with air

May react exothermically with reducing agents to release hydrogen gas.

5.3 Advice for fire-fighters
Use water to cool drums.

5.4 Additional information
Fire-fighters should wear full protective gear and use self contained breathing apparatus with a full facepiece.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel
Use personal protection equipment. (See section 8)
Even a small spillage will present a slipping hazard.

6.1.2 For emergency responders
No information available

6.2 Environmental precautions
Do not allow to enter drains, waterways or cellars.

6.3 Methods and material for containment and cleaning up

6.3.1 Advice on how to contain a spill
Soak up on absorbent, inert material.

6.3.2 Advice on how to clean up a spill
Clean areas with abundant water and detergent.

6.3.3 Any other information: None

6.4 Reference to other sections

See Section 8

6.5 Additional information: None

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures

Measures to prevent fire: Prevent static build-up and discharge. Keep away from possible sources of ignition. Electrical devices should have flame-proof motors.

Measures to prevent aerosol & dust generation: Do not pump at high pressure

Measures to protect the environment: Keep away from drains

7.1.2 Advice on general occupational hygiene

Do not eat, drink or smoke in work areas.
Wash hands after use
Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/storage conditions:

Keep tightly closed on a site suitable for flammable materials.
Ensure adequate air circulation and fume extraction in storage and working areas.
Keep under environmental temperature.

Packaging material:

Original drums, alternative lacquer lined drums or lined bulk tank under nitrogen. See technical data for suitable plastics.

Requirements for storage rooms and vessels:

Do not store in carbon steel tanks.

Hints on storage assembly:

Storage class: No information available

Further information on storage conditions: No information available

7.3 Specific end use(s)

Recommendations: None

Industrial sector specific solutions: None

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Substance: Gum turpentine
CAS No: 8006-64-2

Engineering measures:	Ensure adequate air circulation and fume extraction. Electrical earthing and flameproof switchgear/ motors.	
Control parameters:	Occupational exposure limits/ TLV: TLV (recommended OEL(TLV)): TLV-TWA (time weighted average): TLV-STEL (short term expos.): IHI (inhalation hazard index):	No data available 100 ppm 100 ppm 8 hrs 150 ppm 10 mins 18

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Electrical motors and switch gear should be flameproof See Section 7.2 Technical measures

8.2.2 Personal protection

8.2.2.1 Eye and face protection

Tightly fitting safety goggles and face protection.

8.2.2.2 Skin protection

Hand protection: Rubber/PVC gloves.
Body protection: Oilproof protective clothing. Other protection: No information available.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION (cont.)

8.2.2.3 Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. (Organic vapour mask)

8.2.2.4 Thermal hazards: **None**

8.2.2.5 Other
Smoking forbidden.

Hygiene measures:
Avoid contact with eyes.
Will de-fat skin, frequent and long-term skin contact to be avoided. May cause skin sensitisation or occupational dermatitis in case of sensitive skin. In case of sensitive skin use barrier cream or skin moisturiser after contact. Wash hands thoroughly before breaks and at the end of the work day.

8.2.3 Environmental exposure controls:
See Section 6.2

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance:	**non viscous liquid, colourless to oily brown**
b) Odour:	**turpentine**
c) Odour threshold:	**No data available**
d) pH:	**not determined**
e) Melting point / freezing point:	**-55°C**
f) Initial boiling point and boiling range:	**initial: 156°C ASTM D 233-13** **94% max. 170°C ASTM D 233-13**
g) Flash point:	**34 – 38°C (tag o.c.) ASTM D 56**
h) Evaporation rate:	**<1 (Butyl acetate=1)**
i) Flammability (solid, gas):	**Not applicable**
j) Upper/lower flammability or explosive limits:	**0.8% - 6% volume**
k) Vapour pressure:	**504 Pa at 20°C** **3623 Pa at 50°C**
l) Vapour density:	**No data available**
m) Relative density:	**0.855-0.868 g/cm^3 ASTM D 233-11 at 25°C**
n) Solubility(ies):	**Water solubility: <0.1%** **Solvent solubility: no data available**
o) Partition coefficient: n-octanol/water:	**(Solubility-lipids)**
p) Auto-ignition temperature:	**>250°C**
q) Decomposition temperature:	**No data available**
r) Viscosity:	**1.5 cp at 25°C**
s) Explosive properties:	**(above 40°C explosive vapour/air mixtures may be formed)**
t) Oxidising properties:	**stable under normal storage and use conditions**
u) Kauri Butanol value:	**71 approx.**

Physical hazards

a) Explosives	**Not applicable**
b) Flammable gases	**Not applicable**
c) Flammable aerosols	**Not applicable**
d) Oxidising gases	**Not applicable**
e) Gases under pressure	**Not applicable**
f) Flammable liquids	**Flam.Liq. 3**
g) Flammable solids	**Not applicable**
h) Self-reactive substances and mixtures	**Not applicable**
i) Pyrophoric liquids	**Not applicable**
j) Pyrophoric solids	**Not applicable**
k) Self-heating substances and mixtures	**Not applicable**
l) Substances and mixtures which. In contact with water, emit flammable gases	**Not applicable**
m) Oxidising liquids	**Not applicable**
n) Oxidising solids	**Not applicable**
o) Organic peroxides	**Not applicable**
p) Corrosive to metals	**Not applicable**

See Section 16.3

9.2 Other safety information: **None**

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity
May react exothermically with reducing agents to release hydrogen gas.

10.2 Chemical stability
Under normal conditions, the product is stable. Is not an oxygen donor.
Is not an exigen donor.

10.3 Possibility of hazardous reactions
Burning generates CO, CO^2 and acrid smoke.

10.4 Conditions to avoid: No information available

10.5 Incompatible materials
Strong oxidising agents, acids, clays and mineral acids.

10.6 Hazardous decomposition products
Hazardous decomposition products are not known.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Toxicokinetics, metabolism and distribution

Routes of administration:

Absorption	No data available
Distribution	No data available
Metabolism	No data available
Excretion	No data available

11.2 Information on toxicological effects

a) Acute toxicity: Acute Tox 4: oral, dermal, inhalation

Oral	LD50 oral (rat):	>3200 mg/kg (OECD 401)
Dermal	LD50 dermal (rabbit):	>2000 mg/kg (OECD 404). Moderate irritation (RIFM) Full strength 24 hr. under occlusion (rabbit) (RIFM)
Inhalation:	13.5 mg/litre	

b) Skin corrosion/irritation: Skin Mild Irrit. 3 - No data available.

c) Serious eye damage/irritation: Eye Irrit. 2A - Irritant effects (RIFM) Full strength to conjunctival sac (rabbit) (TDS)

d) Respiratory or skin sensitisation: Skin Sens. 1B - No data available.

e) Mutagenicity: Ames mutagenicity: negative
In vitro: not found
In vivo: not found

f) Carcinogenicity: Based on available data, the classification criteria are not met.

g) Reproductive toxicity:

Impairment of fertility:	Based on available data, the classification criteria are not met.
Reproductive toxicity:	Based on available data, the classification criteria are not met.
Developmental toxicity:	Based on available data, the classification criteria are not met.

h) STOT-single exposure: Based on available data, the classification criteria are not met

i) STOT-repeated exposure: Based on available data, the classification criteria are not met

j) Aspiration hazard: The consumption of a considerable dose can cause pulmonary damage

11.3 Other

Narcosis:	Based on available data, the classification criteria are not met.
Endocrine disruption potential:	No data available
Local effects:	Irritating to eyes, skin and mucous membranes.

All significant components FEMA listed.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Fish toxicity:	**LC-0**	**26 mg/l**
	LC-50	**33 mg/l**
	LC-100	**43 mg/l**
Daphnia toxicity:	**10-100mg/l (WAF) 24/48 hour**	
Algae toxicity:	**>100mg/l (WAF) 72 hour Eb/ErC50**	
Earthworm toxicity:	**No data available**	
Plant toxicity:	**No data available**	

Classified as toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment. See Section 16.3

12.2 Persistence and degradability

Biodegradability:	**Complete in 28 days.**
	OECD 301E - readily biodegradable material modified screening test.
	OECD 302C - inherent biodegradability modified MITI test (no. 2).

12.3 Bioaccumulative potential

No tendency

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Based on available data, the classification criteria are not met.

12.6 Other adverse effects: **No information available**

12.7 Other information

Accumulation:	**No data available**
Biomagnification:	**No data available**
Photochemical ozone creating potential:	**No data available**
Ozone depletion potential:	**zero stratosphere**
Global warming potential:	**zero**
Waste water oxygen demand (COD):	**No data available**

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste Class (Regulation EU No. 1357/2014)

Code No. 15 05 08 - Discarded organic chemicals consisting of or containing hazardous substances - Dangerous

Type of Waste (Regulation EU 1357/2014)

HP3 Flammable
HP5 Specific Target Organ Toxicity (STOT) Aspiration Toxicity
HP14 Ecotoxic
HP4 Irritant – skin irritation and eye damage
HP6 Acute toxicity
HP13 Sensitising

Waste Management (disposal and evaluation)

Consult authorised waste service manager on the assessment and disposal considerations in accordance with Annex 1 and 2 (Directive 2008/98/EC) As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be handled in the same way as the actual product. Otherwise it will be processed as non dangerous residue.

SECTION 13. DISPOSAL CONSIDERATIONS (cont.)

13.1.2Waste treatment options. : Do not allow to enter drinking or waste water supplies or

13.1.3 Sewage disposal options ; soil. None – do not allow to enter sewer system

13.1.4 Other disposal No information available

recommendations:

13.2 Additional information: None

SECTION 14. TRANSPORT INFORMATION

UN number:	**1299** **IMCO No. 3133**
UN proper shipping name:	**Turpentine**
Packing group:	**111**
Hazard Class:	**3**
Dangerous for the Environment :	**Yes**

Land Transport (ADR/RID)

Transport hazard class(es):	**3**
Tunnel Code :	**D/E**
Dangerous for the environment	**Yes**
Special provisions:	**Can only be transported on ADR registered vehicles with qualified drivers**

Sea transport (IMDG Code)

Transport hazard class(es):	**3**
Packing Group :	**III**
Dangerous for the Environment :	**Yes**
EmS Codes :	**F-E , S-E**

Air transport (ICAO-TI/IATA-DGR)

Transport hazard class(es):	**3**
Packing Group :	**III**
Dangerous to the Environment :	**Yes**

SECTION 15. REGULATORY INFORMATION

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

Authorisations and/or restrictions on use:

Authorisations:	**Not applicable**
Restrictions on use:	**None**

Other EU regulations

Limitations of emissions of volatile organic compounds 1999/13/EC (VOC-guideline):	**95%**

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

15.3 TSCA - Turpentine is listed on the TSCA inventory

15.4 California Prop.65 - None of the Chemicals in this product are listed

SECTION 16. OTHER INFORMATION

16.1 Legislation Related to the Safety Data Sheet : This Safety Data Sheet has been produced in accordance with Annex II-Guide to the compilation of Safety Data sheets of Regulation (EC No.1907/2006), Regulation (EU) No. 453/2010 , Regulation (EC) No. 2015/830

16.2 Abbreviations and acronyms

ADN:	**European Provisions Concerning the International Carriage of Dangerous Goods by Inland Waterway**
ADR:	**Accord europeen relative au transport international des marchandises Dangereuses par Route (European Agreement concerinng the International Carriage of Dangerous Goods by Road)**
AVV:	**Abfallverzeichnis-Verordnung**
CAS:	**Chemical Abstracts Service**
CFR:	**Code of Federal Regulations**
CLP:	**Classification, Labelling and Packaging**
COD:	**Chemical Oxygen Demand**
DGR:	**Dangerous Goods Regulation**
DPD:	**Dangerous Preparations Directive**
EINECS:	**European Inventory of Existing Commercial Chemical Substances**
EWC:	**European Waste Catalogue**
FDA:	**Food and Drug Administration**
FEMA:	**Federal Emergency Management Agency,**
GGVE:	**Gefahrgutverordnung Eisenbahn**
GGVS:	**Gefahrgutverordnung Straße**
GGVSee:	**Gefahrgutverordnung See**
GHS:	**Globally Harmonized System (of Classification and Labelling of Chemicals)**
GRAS:	**Generally recognised as safe**
IATA:	**International Air Transport Association**
ICOA	**International Civil Aviation Organization**
IHI:	**Inhalation hazard index**
IMCO:	**Inter-Governmental Maritime Consultative Organization**
IMDG:	**International Maritime Dangerous Goods**
INCI:	**International Nomenclature of Cosmetic Ingredients**
LC50:	**Lethal concentration 50%**
LD50:	**Lethal dose 50%**
MAK:	**Maximum Allowable Concentrations (Maximale Arbeitsplatzkonzentrationen)**
MITI:	**Ministry of International Trade and Industry**
OECD:	**Organisation for Economic Co-operation and Development**
OEL:	**Occupational exposure limit**
PBT:	**Persistent, Bioaccumulative and Toxic**
REACH:	**Registration, Evaluation, Authorisation and restriction of CHemicals.**
RID:	**Reglement International concernant le transport des marchandises Dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)**
RIFM:	**Research Institute for Fragrance Materials**
SDS:	**Safety Data Sheet**
STEL:	**Short-term exposure limit**
STOT:	**Specific Target Organ Toxicity**
TD:	**Toxic dose**
TDS:	**Total dissolved solids**
TI:	**Transport Index**
TLV:	**Threshold limit value**
TSCA:	**Toxic Substances Control Act**
TWA:	**Time-weighted average**
VOC:	**Volatile Organic Compounds**
vPvB:	**very Persistent, very Bioaccumulative**
WAF:	**Water-Accommodated Fractions**

16.3 Key literature references and sources for data

Data for fish toxicity quoted from Hommel – book for dangerous goods (based on data for nearest chemically related substance – Dipentene)

Control parameters: TLV quoted from T A Luft (Germany) and MAK – list (Austria) (based on data for nearest related chemical compounds (Terpenes and Terpene hydrocarbons))

16.4 Classification and procedure used to derive the classification for mixtures according to regulation (EC) 1272/2008 [CLP]

Not applicable

SECTION 16. OTHER INFORMATION (cont.)

16.5 Relevant R- and H-phrases

R-phrases:

R10	**Flammable**
R20/21/22	**Harmful by inhalation, in contact with skin and if swallowed.**
R36/38	**Irritating to eyes and skin**
R43	**May cause sensitisation by skin contact**
R51/53	**Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment**
R65	**Harmful: may cause lung damage if swallowed**

16.5 Relevant R- and H-phrases (cont.)

Hazard statements:

H226	**Flammable liquid and vapour**
H302	**Harmful if swallowed**
H304	**May be fatal if swallowed and enters airways**
H312	**Harmful in contact with skin**
H315	**Causes skin irritation**
H317	**May cause an allergic skin reaction**
H319	**Causes serious eye irritation**
H332	**Harmful if inhaled**
H411	**Toxic to aquatic life with long lasting effects**

16.6 Training advice: **None**

16.7 Further information

TSCA listed

This substance is not listed in Part 1, 11 and 111 of Annex 1 304/2003/EC (or its later amendments) and does not require notification for export outside of the EU

Tariff code: **380510-10-00**

16.8 Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and is not to be considered as a warranty or quality specification. This information relates only to the material designated and may not be valid for such material used in combination with any other materials.