

Certificate of Analysis

SALICYLIC ACID

Batch No: 4411909

Best Before End: October 2023

Assay 99.6%
Sulphated Ash 0.02
Loss on Drying 0.042
Heavy Metals <20
Sulphate <200
Chloride <100
Total Impurities 0.002



March 6, 2012

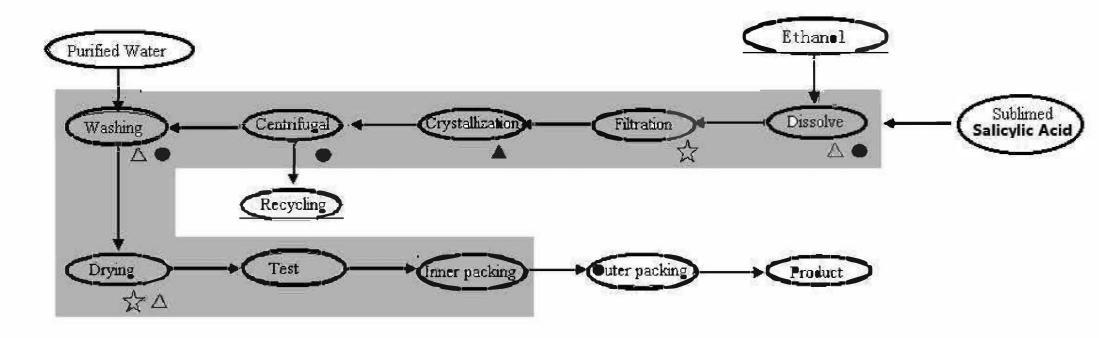
Allergen Statement

We, certify that there are no food allergens used during the whole manufacturing process and no raw materials are used which are derived from the following:

- milk
- egg
- fish
- Crustacean shellfish
- Tree nuts
- Wheat
- Peanuts
- Soybeans



Flow Chart of Salicylic Acid







GMO Statement

PRODUCT NAME: SALICYLIC ACID

MADAR Corporation Limited can confirm that the above listed product is GMO Free.

Vegetarian & Vegan Suitability Statement

MADAR Corporation Limited can confirm that the above listed product to the best of our knowledge has not been tested in animals and does not contain dairy or any other animal product, by product or derivative and is therefore suitable for vegetarian and vegan use.

Palm Statement

MADAR Corporation Limited can confirm that the above listed product to the best of our knowledge does not contain any palm oil or palm kernel oil.

11/10/19



STATEMENT

DATE:APR 5, 2014

WE HEREBY DECLARED THAT THE ORIGIN OF OUR SALICYLIC ACID (BP& EP) IS SYNTHETIC.

Printing date 07.01.2019 Revision: 18.12.2015

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

- · 1.1 Product identifier
- · Trade name: Salicylic acid
- · CAS Number:

69-72-7

· EC number:

200-712-3

- **Registration number** 01-2119486984-17
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against

Intermediate; manufacture of resins; use for separation of salts; tyre manufacturing and retreading; pharmaceuticals; fertilser additive; cleaning agents; cosmetics.

- · Sector of Use
- SU1 Agriculture, forestry, fishery
- SU2a Mining, (without offshore industries)
- SU8 Manufacture of bulk, large scale chemicals (including petroleum products)
- SU9 Manufacture of fine chemicals
- SU11 Manufacture of rubber products
- SU 0: Other: SU3 Industrial
- SU 0: Other: Manufacture of basic pharmaceutical products
- · Product category
- PC3 Air care products
- PC12 Fertilisers
- PC19 Intermediate
- PC28 Perfumes, fragrances
- PC29 Pharmaceuticals
- PC31 Polishes and wax blends
- PC32 Polymer preparations and compounds
- PC35 Washing and cleaning products (including solvent based products)
- PC39 Cosmetics, personal care products
- · Application of the substance / the mixture

The product has many industrial, professional and consumer applications.

· Uses advised against

Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate PPE. Any use involving significant release of aerosol, vapour or dust in the breathing zone of workers where they are exposed without suitable RPE.

Processes involving extreme heat use advised against.

The product is intended exclusively for industrial and professional use.

- · 1.3 Details of the supplier of the safety data sheet
- · Supplier:

MADAR Corporation Ltd

19-20 Sandleheath Industrial Estate

Fordingbridge

Hampshire

SP6 1PA

UK

Tel: (0044) 1425 655555

e-mail: sales@madarcorporation.co.uk

- Further information obtainable from: Product safety department.
- **1.4 Emergency telephone number:** Tel: (0044) 1425 655555 (not 24 hours)

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Trade name: Salicylic acid

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SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008



Eye Dam. 1 H318 Causes serious eye damage.



Acute Tox. 4 H302 Harmful if swallowed.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

- · Hazard pictograms GHS05, GHS07
- · Signal word Danger
- · Hazard statements

H302 Harmful if swallowed.

H318 Causes serious eye damage.

· Precautionary statements

P260 Do not breathe dust.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P270 Do not eat, drink or smoke when using this product.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.1 Chemical characterisation: Substances
- · CAS No. Description

69-72-7 Salicylic acid

- · Identification number(s)
- **EC number:** 200-712-3

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

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· After eye contact:

DO NOT DELAY!

Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

DO NOT DELAY!

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

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

No further relevant information available.

· Information for doctor:

Treat symptomatically and supportively.

Refer to section 11.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture

Combustible.

Finely dispersed particles form explosive mixtures in air.

- · 5.3 Advice for firefighters
- · Protective equipment:

Wear fully protective suit.

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

· Additional information Slightly soluble in water.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Avoid formation of dust.

Wear protective equipment. Keep unprotected persons away.

Keep ignition sources away - no smoking.

 \cdot 6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Do not allow to penetrate the ground/soil.

· 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

· 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 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Prevent formation of dust.

Ensure good ventilation/exhaustion at the workplace.

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Safety showers and eye wash facilities should be available at the work area.

 \cdot Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Flash point: 157 °C

Ignition temperature: 570 °C Temperature class: T1

Minimum ignition energy: < 10 mJ Lower explosion limit:: 15 g/m³

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.
- · Information about storage in one common storage facility:

Store away from oxidising agents.

Store away from foodstuffs.

Do not store together with alkalis (caustic solutions).

· Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace: Not required.
- · DNELs

Workers - Hazard via inhalation route

Systemic effects

- DNEL (Derived No Effect Level): 5 mg/m³

Workers - Hazard via dermal route

Systemic effects

- DNEL (Derived No Effect Level): 2.3 mg/kg bw/day

General Population - Hazard via inhalation route

Systemic effects

- DNEL (Derived No Effect Level): 4 mg/m³

General Population - Hazard via dermal route

Systemic effects

- DNEL (Derived No Effect Level): 1 mg/kg bw/day

General Population - Hazard via oral route

Systemic effects

- DNEL (Derived No Effect Level): 1 mg/kg bw/day

· PNECs

PNEC aqua (freshwater): 0.2 mg/L PNEC aqua (marine water): 0.02 mg/L PNEC aqua (intermittent releases): 1 mg/L

PNEC STP: 162 mg/L

PNEC sediment (freshwater): 1.42 mg/kg sediment dw PNEC sediment (marine water): 0.142 mg/kg sediment dw

PNEC soil: 0.166 mg/kg soil dw

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:

Select PPE appropriate for the operations taking place taking into account the product properties.

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· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not breath dust

Do not eat, drink, smoke or sniff while working.

Storing food in the working area is prohibited.

Pregnant women should strictly avoid inhalation or skin contact.

A safe system of work must be formulated and followed to ensure that workers who may be pregnant or breastfeeding do not come into direct contact with the product.

· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

· Body protection:

Protective work clothing

· Ignition temperature:

Body protection must be chosen depending on product properties, activity and possible exposure.

SECTION 9: Physical and chemical properties

| • 9.1 Information on basic physical and chemical properties • General Information | | |
|---|---------------------------|--|
| · Appearance: | | |
| Form: | Powder | |
| Colour: | White | |
| · Odour: | Characteristic | |
| · Change in condition | | |
| Melting point/Melting range: | 158-160 °C | |
| Boiling point/Boiling range: | approx. 256 °C | |
| · Flash point: | 157 °C | |
| · Flammability (solid, gaseous): | Product is not flammable. | |
| · · · · · · · · · · · · · · · · · · · | | |

>160 °C

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| | (Contd. of page 5) |
|--|---|
| · Decomposition temperature: | Not determined. |
| · Danger of explosion: | Product is not explosive. However, formation of explosive air/dust mixtures are possible. |
| · Explosion limits: Lower: | 15 g/m³ |
| · Density at 20 °C: | 1.44 g/cm³ |
| · Solubility in / Miscibility with | |
| water at 20 °C: | 20.43 g/l |
| · Partition coefficient (n-octanol/water): | |
| 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Dust explosion possible if in powder or granular form, mixed with air.

· 10.3 Possibility of hazardous reactions

The solution in water is a weak acid.

Reacts with strong oxidants.

The substance can react dangerously with fluorine.

- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials:

Strong bases.

Strong oxidising agents.

Iodine, Iron and iron salts.

 $\cdot \ 10.6 \ Hazardous \ decomposition \ products:$

Carbon monoxide and carbon dioxide

Phenol

· Additional information:

Volatility becomes noticeable above 50-60 °C.

Combustible solid.

Slightly soluble in water.

Sensitive to light.

Gradually discolors in sunlight.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity

Harmful if swallowed.

· LD/LC50 values relevant for classification:

Oral LD50 891 mg/kg (rat)

- Primary irritant effect:
- · Skin corrosion/irritation Frequent or prolonged contact may irritate and cause dermatitis.
- · Serious eye damage/irritation

Causes serious eye damage.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Other information (about experimental toxicology):

ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation and by ingestion.

INHALATION RISK: Evaporation at 20 °C is negligible; a nuisance-causing concentration of airborne

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particles can, however, be reached quickly by dispersing powder.

- · Subacute to chronic toxicity: Repeated or prolonged contact with skin may cause dermatitis.
- · Additional toxicological information:

EFFECTS OF SHORT-TERM EXPOSURE: The substance may cause effects on the central nervous system and the acid-base balance in the body, resulting in delirium and tremors.

Anyone who has shown aspirin sensitisation should never come in contact with this substance.

- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- $\cdot \textbf{STOT-single exposure} \ \text{Based on available data, the classification criteria are not met.} \\$
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability biodegradable
- 12.3 Bioaccumulative potential Product is not expected to bioaccumulate.
- 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Recommended Hierarchy of Controls:

- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· European waste catalogue

Waste key numbers in accordance with the European Waste Catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

- · Uncleaned packaging:
- · Recommendation:

Disposal must be made according to official regulations.

Container remains hazardous when empty. Continue to observe all precuations.

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Containers, even those that are "empty," may contain residues that can develop flammable vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

| SECTION 14: Transport information | | |
|---|--|--|
| · 14.1 UN-Number · ADR, ADN, IMDG, IATA | Void | |
| · 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA | Void | |
| · 14.3 Transport hazard class(es) | | |
| · ADR, ADN, IMDG, IATA · Class | Void | |
| · 14.4 Packing group · ADR, IMDG, IATA | Void | |
| · 14.5 Environmental hazards: · Marine pollutant: | No | |
| · 14.6 Special precautions for user | Not applicable. | |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable. | | |
| · Transport/Additional information: | Not dangerous according to the above specifications. | |
| · UN "Model Regulation": | Void | |

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing MSDS: Product safety department.
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1



01.2019 Rev 1

SPECIFICATION

Salicylic Acid

| Assay | 99.0 - 100.5 | % |
|-----------------------------|--------------|---------|
| Chlorides | 100 | ppm max |
| Sulphate | 200 | ppm max |
| Heavy Metals | 20 | ppm max |
| Loss on Drying | 0.50 | % max |
| Sulphated Ash | 0.1 | % max |
| Initial Melting Point Range | 158.0-161.0 | °C |
| Total Impurities | 0.2 | % max |
| Other Impurities | 0.0.5 | % max |



Technical Data Sheet

Document No.: STP-43-007-03

Product Name: Salicylic acid

| Other Name: | 2-hydvoxybenzenecarboxylil acid | |
|--------------------|--|--|
| Molecular Formula: | C ₇ H ₆ O ₃ | |
| Formula Weight: | 138.2 | |
| CAS No.: | 69-72-7 | |

C●●H

Structure

| Specification | The Current Ph.Eur. Product | The Current Ph.Eur. Product | |
|------------------------|---|-----------------------------|--|
| Items | Specification | Method | |
| Characters | A white, crystalline powder or white or colourless, acicular crystals, slightly soluble in water, freely soluble in ethanol (96 per cent), sparingly soluble in methylene chloride. | Ph.Eur | |
| Identification | A. Melting point158 °C to 161 °C B. The IR spectrum of sample complies with Salicylic acid CRS C. Positive | Ph.Eur(2.2.14): | |
| Appearance of solution | Solution is clear and colourless | Ph.Eur(2.2.1) (2.2. | |
| Related substances | Impurity A:4-hydroxybenzoic acid≤0.1% | | |
| | Impurity B:4-hydroxyisophthalic acid≤0.05% | | |
| | ImpurityC: Phenol ≤0.02% | Ph.Eur(2.2.29) | |
| | Any other impurities ≤0.05% | | |
| | Total impurities≤0.2% | | |
| Chloride | NMT100ppm | Ph.Eur(2.4.4) | |
| Sulfate | NMT200ppm | Ph.Eur | |
| Heavy metals | NMT20ppm | Ph.Eur(2.4.8) | |
| Loss on drying | NMT0.5% | Ph.Eur(2.2.32) | |
| Sulphated ash | NMT0.1% | Ph.Eur(2.4.14) | |



GMP Certificated

Assay (dried substance)

Contains C₇H₆O₃ 99.0%-100.5%

Ph.Eur

STORAGE:

Protected from light.