SAFETY DATA SHEET (SDS)

Regulation (EC) No. 1907/2006 (REACH) and Regulation (EC) No. 1272/2008 (CLP)

Natural Raspberry Ketone

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND COMPANY

1.1 Product Identifier

Product Name: Natural Raspberry Ketone
Chemical Name: Natural Raspberry Ketone

CAS Number: 5471-51-2
EC Number: 226-806-4

Molecular Formula: $C_{10}H_{12}O_2$
Molecular Weight: 164.2 g/mol

Product Type: Natural Aromatic Raw Material
Product Code: 258800

The supplied SDS identifies Natural Raspberry Ketone as CAS 5471-51-2, EC 226-806-4; Section 3 reports the formula, molecular weight and composition as 100%.

1.2 Identified Use

Recommended Use: Flavour use for food and feed only.

This is the use specified in the supplied manufacturer's SDS; I have retained it rather than changing the declared use to perfumery.

1.3 Supplier Details

Supplier
Aromology Trading LLC
G05 Al Ghazal Building
Nadd Al Hamar
Dubai, United Arab Emirates

Website: www.aromology.com
Email: info@aromology.com
Telephone: +971 505197601

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification

According to Regulation (EC) No. 1272/2008 (CLP):

NOT CLASSIFIED AS HAZARDOUS

The supplied SDS specifically states that the substance is not classified as hazardous under Regulation (EC) No. 1272/2008.

2.2 Label Elements

Signal Word: None Required
Hazard Pictograms: None Required
Hazard Statements: None Required

2.3 Other Hazards

The substance is not listed as a Substance of Very High Concern (SVHC) on the REACH Candidate List and is not subject to authorisation under Annex XIV of REACH.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	EC Number	Concentration
Natural Raspberry Ketone	5471-51-2	226-806-4	100%

Molecular Formula: $C_{10}H_{12}O_2$
Molecular Weight: 164.2 g/mol

Oral LD50: >2,000 mg/kg
Dermal LD50: >2,000 mg/kg

SECTION 4: FIRST-AID MEASURES

4.1 Description of First-Aid Measures

After Inhalation:
Provide fresh air.

After Skin Contact:
Wash with plenty of water. Remove contaminated clothing and wash before reuse.

After Eye Contact:
Rinse immediately, carefully and thoroughly with an eye bath or water.

After Ingestion:
Rinse mouth immediately and drink one glass of water.

4.2 Most Important Symptoms and Effects
No information available.

4.3 Immediate Medical Attention
Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media
Coordinate fire-fighting measures according to the surrounding fire.

5.2 Special Hazards
Product: Non-Flammable
However, vapours may form explosive mixtures with air.

5.3 Advice for Firefighters
In case of fire, wear self-contained breathing apparatus.
Use water spray to protect personnel and cool endangered containers.
Collect contaminated fire-extinguishing water separately. Do not allow contaminated water to enter drains or surface water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions
Use appropriate personal protective equipment.

6.2 Environmental Precautions
Do not allow the material to enter surface water or drains.

6.3 Methods for Containment and Cleaning
Absorb with suitable liquid-binding material, including:
Sand • Diatomaceous Earth • Acid-Binding Agents • Universal Binding Agents
Collect recovered material and dispose of according to applicable waste-disposal requirements.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling
No special handling measures are required under normal conditions.
Remove contaminated clothing.
Wash hands before breaks and after work.
Do not eat, drink, smoke or sniff while handling the material.

7.2 Storage Conditions
Keep container tightly closed.
No special joint-storage measures are specified in the supplied SDS.

7.3 Specific End Use
For flavour use for food and feed only.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 DNEL Values

Population / Exposure	Route	Value
Worker – Long-Term	Inhalation	114.24 mg/m³
Worker – Long-Term	Dermal	170 mg/kg bw/day
Worker – Acute	Inhalation	114.24 mg/m³
Worker – Acute	Dermal	170 mg/kg bw/day
Consumer – Long-Term	Inhalation	59.5 mg/m³
Consumer – Acute	Inhalation	59.5 mg/m³
Consumer – Long-Term	Dermal	170 mg/kg bw/day
Consumer – Acute	Dermal	170 mg/kg bw/day
Consumer – Long-Term	Oral	17 mg/kg bw/day
Consumer – Acute	Oral	17 mg/kg bw/day

8.2 PNEC Values

Environmental Compartment	Value
Freshwater	0.1 mg/L
Marine Water	0.01 mg/L
Freshwater Sediment	0.307 mg/kg
Marine Sediment	0.031 mg/kg
Soil	0.198 mg/kg

8.3 Personal Protective Equipment

Eye / Face Protection: Wear suitable eye or face protection.
Hand Protection: Chemical-resistant protective gloves. Suitable glove type: disposable NBR **(Nitrile Rubber)** gloves.
Skin Protection: Protective clothing.
Respiratory Protection: In case of inadequate ventilation, wear suitable respiratory protection.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification / Value
Physical State	Crystalline
Colour	White
Melting Point / Freezing Point	83°C
Boiling Point	292°C

Property	Specification / Value
Flash Point	>93°C
pH at 20°C	7
Water Solubility at 20°C	4.61 g/L
Log Pow	1.33
Vapour Pressure at 20°C	0.3 hPa
Vapour Pressure at 50°C	2.6 hPa
Density at 20°C	1.17 g/cm³
Solid Content	100.00%
Explosive Properties	Not Explosive according to EU A.14
Oxidising Properties	Not Oxidising

These values are taken directly from Sections 9.1 and 9.2 of the supplied SDS.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
No hazardous reaction when handled and stored according to the recommended provisions.

10.2 Chemical Stability
Stable under normal ambient storage temperatures.

10.3 Possibility of Hazardous Reactions
No known hazardous reactions.

10.4 Conditions to Avoid
None specified.

10.5 Incompatible Materials
No information available.

10.6 Hazardous Decomposition Products
No known hazardous decomposition products.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity

Exposure Route	Result	Species	Method
Oral	LD50 >2,000 mg/kg	Rat	OECD 420
Dermal	LD50 >2,000 mg/kg	Rat	OECD 402

Other Toxicological Endpoints

Skin Corrosion / Irritation: Classification criteria not met
Serious Eye Damage / Irritation: Classification criteria not met
Skin Sensitisation: Classification criteria not met
Germ Cell Mutagenicity: Classification criteria not met
Carcinogenicity: Classification criteria not met
Reproductive Toxicity: Classification criteria not met
STOT – Single Exposure: Classification criteria not met
STOT – Repeated Exposure: Classification criteria not met
Aspiration Hazard: Classification criteria not met

The supplied SDS concludes that the substance is not hazardous according to Regulation (EC) No. 1272/2008 (CLP).

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The supplied SDS states: Product is not ecotoxic.

Test	Result	Exposure
Acute Fish Toxicity	LC50 75.75 mg/L	96 h
Acute Algae Toxicity	ErC50 101.05 mg/L	96 h
Acute Crustacea Toxicity	EC50 <100 mg/L	48 h

12.2 Persistence and Degradability

OECD 301B results reported:
11% – 1 Day
95% – 7 Days
105% – 14 Days

The source describes the material as readily biodegradable according to OECD criteria.

12.3 Bioaccumulative Potential
Log Pow: 1.33

12.4 Mobility in Soil
Product not tested.

12.5 PBT and vPvB Assessment
The substance does not meet the PBT/vPvB criteria of REACH Annex XIII.

12.6 Endocrine-Disrupting Properties
The supplied SDS states that the substance does not have endocrine-disrupting properties with respect to non-target organisms.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not allow the material to enter surface water, drains, soil or subsoil.
Dispose of waste according to applicable legislation.

Waste Code – Product / Residues: 16 03 05
Waste Code – Contaminated Packaging: 15 01 10

Non-contaminated packaging may be recycled.
Contaminated packaging should be handled in the same manner as the substance itself.

SECTION 14: TRANSPORT INFORMATION

ADR / RID – Road and Rail
Not classified as dangerous goods

ADN – Inland Waterways
Not classified as dangerous goods

IMDG – Marine Transport
Not classified as dangerous goods

ICAO / IATA – Air Transport
Not classified as dangerous goods

UN Number: Not Applicable
Transport Hazard Class: Not Applicable
Packing Group: Not Applicable
Environmentally Hazardous: No
Marine Bulk Transport: Not Applicable

SECTION 15: REGULATORY INFORMATION

15.1 EU Regulatory Information

Directive 2010/75/EU – Industrial Emissions: 100% (1170 g/L)
SEVESO III – Directive 2012/18/EU: Not Subject
Water Hazard Class (Germany): WGK 2 – Obviously Hazardous to Water

15.2 Chemical Safety Assessment

A chemical safety assessment has not been carried out for this substance.

SECTION 16: OTHER INFORMATION

PRODUCT IDENTIFICATION SUMMARY

Product Name: Natural Raspberry Ketone
CAS Number: 5471-51-2
EC Number: 226-806-4
Molecular Formula: $C_{10}H_{12}O_2$
Molecular Weight: 164.2 g/mol
Composition: 100%
Physical Form: White Crystalline Material
CLP Classification: Not Classified as Hazardous
Transport Classification: Not Dangerous Goods

Authorised by:
Fozia Khot
Director