

Material Safety Data Sheet

Printed : 19/06/2025

Revised : LSI_2023-1-CLP from 19/06/2025

2.3 PENTANEDIONE NATURAL

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

2.3 PENTANEDIONE NATURAL

Product identification : 2,3-PENTANEDIONE NAT. code 2.3PEN
C.A.S number : 600-14-6 ; ;
CAS EINECS number :
EINECS number : 209-984-8
EC (REACH) number :
REACH registration number : Exempted (Imported or manufactured <1T/year)

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

Concentrated aromatic raw material.
Not intended for personal use in this form or concentration.
For industrial use only, not for retail sale.

USE : **Flavouring substance ; Perfuming substance (according to batches)**

1.3. Details of the supplier of the safety data sheet

Company : SASU DIFFUSIONS AROMATIQUES
558 allée des Parfums
Parc d'activités "Les Hauts de Grasse"
06530 SAINT-CEZAIRE-SUR-SIAGNE
Tel:+33 (0)4 93 60 82 82
Fax :+33 (0)4 93 60 82 79
Web :www.diffusions-aromatiques.fr
Email :contact@diffusions-aromatiques.fr

1.4. Emergency telephone number

Emergency telephone number 24h/24 - 7d/7: ORFILA (INRS) : +33.(0)1.45.42.59.59

2. HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

GHS Classification :

(RegulationCLP)

ED11 Serious eye damage / eye irritation 1
FL2 Flammable Liquids 2
SS1 Sensitisation skin 1
STO-RE2 Specific target organ toxicity, repeated exposure 2

H225 - Highly flammable liquid and vapour

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H373 - May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of

Material Safety Data Sheet

Printed : 19/06/2025

2.3 PENTANEDIONE NATURAL

Revised : LSI_2023-1-CLP from 19/06/2025

exposure cause the hazard>.

2.2. Label elements

GHS Classification :

(RegulationCLP)



Warning mention : Danger

EDI1 Serious eye damage / eye irritation 1

FL2 Flammable Liquids 2

SS1 Sensitisation skin 1

STO-RE2 Specific target organ toxicity, repeated exposure 2

H225 - Highly flammable liquid and vapour

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H373 - May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician.

P314 - Get medical advice/attention if you feel unwell.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 - Keep container tightly closed.

2.3. Other hazards

- Endocrine disruptors : No components concerned

- Contains substances that may cause allergies : Acetyl propionyl

3. COMPOSITION / INFORMATION ON INGREDIENT

Hazard classes of the following substances according to LABELLING MANUAL in effect

3.1. Substances

Identification number	Substance	Hazard classes & H-phrases	LCS / M-factors / ATE	Percentage %
CAS# 600-14-6	Acetyl propionyl	EDI1, FL2, SS1B, STO-RE2 H318, H225, H317, H373		[70-100]

- Endocrine disruptors : No components concerned

3.2. Mixtures

NO CONCERNED

Material Safety Data Sheet

Printed : 19/06/2025

2.3 PENTANEDIONE NATURAL

Revised : LSI_2023-1-CLP from 19/06/2025

4. FIRST AID MEASURES

4.1. Description of first aid measures

General notes: Take Risk and Safety phrases (section 15) into account.

Following inhalation:

Remove from exposure site to fresh air and keep at rest. Obtain medical advice.

Following skin contact:

Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.

Following eye contact:

Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Following ingestion:

Rinse mouth with water and obtain medical advice.

Notes for the doctor:

Treat symptomatically and supportively.

Treatment may vary with condition of victim and specifics of incident.

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

No data available

Please note the risk and safety phrases

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

No data available

Please note the risk and safety phrases

5. FIRE FIGHTING

5.1. Extinguishing media

Suitable extinguishing media

Depending on the type of product:

- CO₂, dry powder or foam extinguishers
- Water spray or fog to cool the package (if necessary)

Unsuitable extinguishing media :

Direct water jet

5.2. Special hazards arising from the substance or mixture

Flammability : The product is flammable.

Prévention: Do not smoke. Do not use flame near.

In case of fire, may produce toxic fumes of carbon monoxide (CO) or carbon dioxide (CO₂). Exposure to decomposition products may cause health hazards. Do not breathe fumes.

5.3. Advice for firefighters

Material Safety Data Sheet

Printed : 19/06/2025

2.3 PENTANEDIONE NATURAL

Revised : LSI_2023-1-CLP from 19/06/2025

Never use a direct water jet.

Workers should be equipped with suitable protective equipment (respiratory and protective suit). High temperatures can cause high pressures inside closed packages.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

- Wear gloves (if possible made of natural rubber) when handling leaks to avoid contact with the skin, body cleansing should be observed in case of contact.
 - Avoid breathing vapours.
 - Follow normal hygiene rules in case of accidental spillage.
 - Ensure adequate ventilation of the workplace after spillage.
- Refer to protective measures listed under headings 7 and 8.

6.2. Environmental precautions

Prevent contamination of soil and water, runoff into sewers, gutters, rivers. Notify the authorities if the product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods of cleaning up:

- Large spills should be contained with sand or diatomaceous earth, pumped and rinsed with water after recovery of the waste in specific labelled plastic drums to be handed over to an approved recovery company.
- Clean the area carefully to eliminate any residual pollution
- Any sorbent used to mop up leaks must be destroyed quickly, according to local regulations, preferably by incineration; cases of spontaneous combustion of cloths soaked in perfumes or aromas are well known. Spills must be contained by appropriate means and the associated waste treated in accordance with the regulations in force.

6.4. Reference to other sections

See sections 8 and 13 of this safety data sheet where applicable.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

- Wear suitable PPE: gloves (preferably natural rubber) and eye/face protection.
- Handle in well-ventilated areas, ventilated if necessary, at the lowest possible temperature, avoiding dust accumulation.
- Do not smoke. Do not expose to flames or other potential sources of ignition (electrical equipment)
- Observe safety and hygiene standards
- Close the packaging after use.
- Reproduce the labelling if transferring to another container.
- Prevent access by unauthorised persons

7.2. Conditions for safe storage, including any incompatibilities

- Store products in their original containers, preferably full and tightly capped, in a cool, dry place. Do not reuse empty containers.
- Keep away from air and light.
- Avoid unnecessary exposure.

Material Safety Data Sheet

Printed : 19/06/2025

2.3 PENTANEDIONE NATURAL

Revised : LSI_2023-1-CLP from 19/06/2025

- Keep away from food and drink.

7.3. Specific end use(s)

Wash hands and other exposed areas with mild soap and water before eating, drinking, smoking and before leaving work.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Components with Occupational Exposure Limits (OELs) :
No data available

8.2. Exposure controls

Technical measures: Avoid contact with eyes, skin or clothing. Do not ingest. Avoid contact with food, drink.

Personal protective equipment:

Do not eat, drink or smoke during use.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

FORMULA :	C5 H8 O2
Storage conditions :	UNDER NITROGEN. IN COLD ROOM. Store in perfectly airtight original packaging. After opening, check quickly.
SHELF LIFE :	12 months in below conditions, after this time it can be used after control.
Appearance :	Liquid
Color :	Yellow
ODOR :	Characteristic ; butter ; cheese ; pungent
Solubility(ies) :	Insoluble in water, soluble in ethanol
ASSAY (%GC) :	>98%
Flash point :	18°C
Refractive index to 20°C :	[1.401 ; 1.407]
Relative density (d20/20) :	[0.953 ; 0.968]
OPTICAL ROTATION (°) :	ND
MELTING POINT (capillarity) °C :	-52°C
ACID VALUE (mg KOH/g) :	ND

Material Safety Data Sheet

Printed : 19/06/2025 2.3 PENTANEDIONE NATURAL Revised : LSI_2023-1-CLP from 19/06/2025

SPECIFIC GRAVITY (25°C g/cm³) : /

MOLECULAR WEIGHT : **100.12**

FREEZING POINT : **ND**

IGNITION POINT : **ND**

IGNITION TEMPERATURE (°C) : **ND**

EXPLOSIVE LIMITS : **ND**

BOILING POINT (°C) : **108°C**

Vapor pressure : **28.530 hPa at 20°C**

Partition coef (n-octanol/water) : **LOG POW -0.85**

PH : **ND**

9.2. Other information

No data available

10. STABILITY AND REACTIVITY

10.1. Reactivity

· **Dangerous reactions** : No dangerous reactions known.

10.2. Chemical stability

Good stability if storage and handling standards/indications are taken into consideration.

10.3. Possibility of hazardous reactions

No dangerous reaction if storage and handling standards/indications are taken into account.

10.4. Conditions to avoid

Avoid excessive heat sources (open flame, sparks, etc.)
Do not heat closed containers.
Avoid contact with oxidizing agents

10.5. Incompatible materials

Data not available

10.6. Hazardous decomposition products

Thermal decomposition / conditions to be avoided: Avoid contact with any flame or spark, flame, Overheat. Avoid Direct rays of the sun. No decomposition if used according to specifications.
Dangerous decomposition products: No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

Material Safety Data Sheet

Printed : 19/06/2025

2.3 PENTANEDIONE NATURAL

Revised : LSI_2023-1-CLP from 19/06/2025

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

a) Skin corrosion/skin irritation :	Refer to heading 2, if applicable
b) Serious eye damage/eye irritation :	Refer to heading 2, if applicable
c) Respiratory or skin sensitisation :	Refer to heading 2, if applicable
d) Germ cell mutagenicity :	Refer to heading 2, if applicable
e) Carcinogenicity:	Refer to heading 2, if applicable
f) Reproductive toxicity :	Refer to heading 2, if applicable
g) Specific target organ toxicity (STOT) single exposure :	Refer to heading 2, if applicable
h) Specific target organ toxicity (STOT) repeated exposure :	Refer to heading 2, if applicable
i) Aspiration hazard :	Refer to heading 2, if applicable

j) Acute toxicity :

LD50 (DERMAL) (mg/kg) : **ND**

LD50 (ORAL) (mg/kg) : **ND**

LC50 (inhalatoire) : **ND**

11.2. Information on other hazards

Endocrine disrupting properties: The product does not contain substances identified as having endocrine disrupting properties for human health with a concentration equal to or greater than 0.1% (w/w).

11.2.2 Others informations

CMR SUBSTANCES : **Dont' contain CMR substances, category 1A, 1B et 2 of 1272/2008 EC regulation**

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Do not leave the product, even diluted or in great quantity, penetrate the ground water, water or the drains.

12.2. Persistence and degradability

BIODEGRADABILITY : **Readily biodegradable**

12.3. Bioaccumulative potential

Data not available

12.4. Mobility in soil

Data not available

12.5. Results of PBT and vPvB assessment

Data not available

12.6. Endocrine disrupting properties

Material Safety Data Sheet

Printed : 19/06/2025

2.3 PENTANEDIONE NATURAL

Revised : LSI_2023-1-CLP from 19/06/2025

The product does not contain substances identified as having endocrine disrupting properties for the environment with a concentration equal to or greater than 0.1% (w/w).

12.7. Other adverse effects

Data not available

13. DISPOSAL RECOMMENDATIONS

13.1. Waste treatment methods

Product : Recommendation : Does not have to be evacuated with the refuse . Not to let penetrate in the sewers.

Not cleaned packing : Recommendation : Evacuation in accordance with the regulations.

14. TRANSPORT INFORMATION

ADR/ADN/RID:



IMDG:



IATA:



14.1. UN number

ADR/ADN/RID : 1224 ((D/E))

IMDG:1224

IATA :1224

14.2. UN proper shipping name

ADR/ADN/RID : KETONES, LIQUID, N.O.S.(2,3- PENTANEDIONE)

IMDG:KETONES, LIQUID, N.O.S.(2,3- PENTANEDIONE)

IATA :KETONES, LIQUID, N.O.S.(2,3- PENTANEDIONE)

14.3. Transport hazard class(es)

ADR/ADN/RID : 3

IMDG:3

IATA :3

14.4. Packing group

Material Safety Data Sheet

Printed : 19/06/2025

2.3 PENTANEDIONE NATURAL

Revised : LSI_2023-1-CLP from 19/06/2025

ADR/ADN/RID : II
IMDG:II
IATA :II

14.5. Environmental hazards

IMDG : NO CONCERNED

14.6. Special precautions for user

NO CONCERNED

14.7. Maritime transport in bulk according to IMO instruments

NO CONCERNED

15. REGULATORY INFORMATION

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

Valeur ICPE : **4331**

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

16. OTHER INFORMATION

Full H sentences text in point 3

H225 Highly flammable liquid and vapour

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H373 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

Acronyms used:

C.A.S: Chemical Abstract Service

TSCA: Toxic Substances Control Act

EINECS: European inventory of existing Commercial Chemical Substances

GHS Global Harmonized System

CLP: Classification and Labelling and Packaging of substances and mixtures

ADR: Agreement Dangerous goods by Road

IMDG: International Maritime Dangerous Goods

IATA: International Air Transport Association

The information contained in this sheet is based on our knowledge of the product concerned at the time of issue. The information given in this safety data sheet is in accordance with Regulation 1907/2006/EC of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) establishing a European Chemicals Agency, (amended by Regulation 2015/830, 2020/878 (Annex II of REACH), amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94, as well as Council Directive 76/769/EEC, and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC, 200/21/EC and according to Regulation 453/2010/EC of 20 May 2010.

Users' attention is also drawn to the possible risks involved when a product is used for a purpose other than that for which it was designed.

The information provided is based on the current state of our knowledge, but does not constitute a guarantee of the

Material Safety Data Sheet

Printed : 19/06/2025

2.3 PENTANEDIONE NATURAL

Revised : LSI_2023-1-CLP from 19/06/2025

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