



CERTIFICATE OF ANALYSIS

Batch: 4336113

ALDEHYDE C8

Best Before End: September 2020

TEST	REQUIREMENT	RESULT
Appearance	: Colourless to pale yellow liquid	: Conforms
Odour	: Tangy, citrus note, slightly musty	: Conforms
Refractive index @ 20°C	: 1.4170 to 1.4260	: 1.4184
Specific gravity @ 20°C	: 0.8110 to 0.8390	: 0.8222
Purity	: >98%	: 99.37%

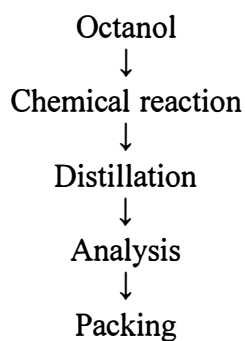


27th September 2018

Please find below a Production flow chart for the following material:-

Product

ALDEHYDE C8



This information is correct to the best of our knowledge and belief. It is for the customer to decide if the material is suitable for their intended use, MADAR Corporation Ltd cannot accept liability for loss, injury or damage which may result from the use of this material or the information above.

2.2 Label elements

Symbols:



Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H411 Toxic to aquatic life with long lasting effects

Precaution statements : P210 Keep away from heat/sparks/open flames/hot surfaces - No smoking
P233 Keep container tightly closed
P243 Take precautionary measures against static discharge
P264 Wash thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection
P261 Avoid breathing dust/fume/gas/mist/vapours/spray
P272 Contaminated work clothing should not be allowed out of the workplace
P273 Avoid release to the environment
P302+352 IF ON SKIN: Wash with soap and water
P362 Take off contaminated clothing and wash before reuse
P333+313 If skin irritation or a rash occurs: Get medical advice/attention
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing
P501 Dispose of contents/container in accordance with local regulations

2.3 Other hazards

None known

Section 3 Composition/Information on Ingredients

3.1 Substance

Identifiers:

Name of material: Octanal
Characterisation: Acyclic aldehydes
CAS number: 124-13-0
EC number: 204-683-8

Information on constituents present at >1% contributing to the hazard classification

Name	Percent	CAS	EC no	H phrases	Hazard abbreviations
Octanal	>98%	124-13-0	204-683-8	H226, 315, 319, 411	Fla3, Ski2, Eye2, ACh2

For full text of H phrases and hazard abbreviations see section 16

3.2 Mixtures - not applicable

Section 4 First Aid Measures

4.1 Description of first aid measures

4.1.1 General information

In case of accident or if you feel unwell, seek medical advice immediately (show label or SDS if possible).

Inhalation :	In the case of excessive inhalation move the exposed person to fresh air and keep at rest in a comfortable position. If symptoms persist get prompt medical attention.
Skin contact :	Avoid prolonged contact with skin. Remove/take off and wash all contaminated clothing. Wash off skin immediately with plenty of water, using soap if available. If there is any sign of tissue damage or persistent irritation, get medical advice.
Eye contact :	Rinse the eyes immediately with plenty of water. Remove any contact lenses. Rinse eyes holding eye lids open. Get medical attention.
Ingestion :	Rinse mouth with water. If they are conscious, have exposed person drink 200 ml of water. Do not induce vomiting. Obtain medical advice.

4.1.2 Extra information

Refer to section 4.1.1 to determine if any immediate medical attention is required; whether remove of the person to fresh air; or removal of shoes and clothing is recommended.

Delayed effects after exposure – Unknown

First aid responders should refer to section 2.2 for details of recommended personal protective equipment

4.2 Most important symptoms and effects, both acute and delayed

The most important symptoms and effects are described in section 2.2 (and on the label). Toxicological effects are described in section 11 of this data sheet.

4.3 Indication of immediate medical attention and special treatment needed

Treat symptomatically

Section 5 Firefighting measures

5.1 Extinguishing media

Extinguish with carbon dioxide, dry powder or foam
Do not use direct water jet

5.2 Special hazards arising from the substance or mixture

As a result of combustion or thermal decomposition dangerous products (CO, CO₂, NO_x) and toxic gases can be formed.

The vapour may be invisible, heavier than air and spread along the ground. Vapours may form explosive mixtures with air. Flash back is possible over considerable distances

5.3 Advice for fire fighters

Wear self-contained breathing apparatus and full body protection
Cool containers exposed to fire with water spray
Collect contaminated fire extinguishing water separately, do not discharge into drains.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Follow precautions for the safe handling of this material as described by this safety data sheet. Provide adequate ventilation. Avoid flames or other sources of ignition. Avoid inhalation of vapours. Avoid contact with skin and eyes.

6.2 Environmental precautions

Contain the spillage as far as possible. Do not allow any spillage to enter drains or local water courses. Notify the relevant authority if material contaminates either of these.

6.3 Methods and material for containment and cleaning up

Remove all sources of ignition, provide effective ventilation. Absorb material with inert, non-combustible material (sand, earth, vermiculite). Transfer to a suitable container for disposal. Dispose according to local/national regulation (see section 13).
Clean spill site after material disposal is complete.

6.4 Reference to other sections

See sections 8 and 13

Section 7 Handling and storage

7.1 Precautions for safe handling

Ensure that the working area is well ventilated. Maintain order and cleanliness. Fully control sources of ignition. Avoid contact with eyes and skin. Wear protective clothing and glasses. Do not breathe vapours. Clean all spillages immediately (see section 6).

Observe good hygiene practices. Do not eat, drink or smoke in work areas. Wash hands after use and before breaks. Remove any contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including an incompatibilities

Store in full, dry, airtight containers below -20 °C, away from sources of heat and light

7.3 Specific end uses

Data not available.

Section 8 Exposure controls/personal protection**8.1 Control parameters**

No specific exposure limits found

8.2 Exposure controls**General work place measures**

Wear protective work clothing and footwear. Do not eat, drink or smoke whilst working. Ensure the working area is well ventilated. Provide access to emergency showers and eye wash stations.

Eye/face protection

Wear tightly fitting goggles.

Skin protection

Wear protective gloves of butyl-rubber composition ≥ 0.5 mm thickness.

Respiratory protection

If the working area is well ventilated, no specific respiratory protective equipment is required.

Environmental exposure controls

Do not allow material to enter drains or local water courses. Avoid subsoil penetration. If materials contaminate the local environment, contact the relevant authorities.

Section 9 Exposure controls/personal protection

9.1 Information on basic physical and chemical properties

Appearance:	Colourless to pale yellow liquid
Odour:	Tangy, citrus note, slightly musty
Odour threshold:	Data not available
pH:	Data not available
Melting point:	12 to 15°C @ 760 mm/Hg
Boiling point:	171 to 173°C @ 760 mm/Hg
Flash point:	51°C
Evaporation rate:	Data not available
Flammability:	Data not available
Upper flammability limit:	Data not available
Lower flammability limit:	Data not available
Upper explosive limit:	Data not available
Lower explosive limit:	Data not available
Vapour pressure:	0.85 mm/Hg @ 25°C
Vapour density:	0.85 mm/Hg @ 25°C
Vapour density:	4.4 g/l
Relative density:	0.822 @ 20°C
Solubility:	Data not available
Partition coefficient n-o:	3.03
Auto ignition temperature:	Data not available
Decomposition temperature:	Data not available
Viscosity:	Data not available
Explosive properties:	Data not available
Oxidising properties:	Data not available

9.2 Other information

No relevant information available

Section 10 Stability and reactivity

10.1 Reactivity

This material is non-reactive under normal conditions of use and storage, see section 7

10.2 Chemical stability

This material is stable under normal conditions of use and storage, see section 7.

10.3 Possibility of hazardous reactions

When handled and stored under the conditions set out in section 7 it is not expected that there will be any hazardous reactions leading to excessive temperatures or pressures.

10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature. Direct sunlight

10.5 Incompatible materials

Oxidising agents, reducing agents, acids, bases, Nitric acid

10.6 Hazardous decomposition products

No specific products known. In the event of fire refer to section 5 for products of combustion.

Section 11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity:	LD50 Oral Rat	5630 mg/kg
	LD50 Dermal Rabbit	6350 mg/kf
Skin corrosion/irritation:	Data not available	
Serious eye damage/irritation:	Data not available	
Respiratory or skin sensitisation:	Data not available	
Germ cell mutagenicity:	Data not available	
Carcinogenicity:	Data not available	
Reproductive toxicity:	Data not available	
STOT - single exposure:	Data not available	
STOT - repeat exposure:	Data not available	
Aspiration hazard:	Data not available	

Section 12 Ecological information

12.1 Toxicity

Data not available

12.2 Persistence and degradability

Data not available

12.3 Bioaccumulative potential:

Data not available

12.4 Mobility in soil

Data not available

12.5 Results of PTB and vPvB assessment:

Data not available

12.6 Other adverse effects:

Data not available

Section 13 Disposal conditions

13.1 Waste treatment methods

Product - Treat any unused product as hazardous waste. Do not let product enter drains. Contact waste disposal services and dispose of material in accordance with local regulations.

Contaminated packaging - Treat packaging in the same manner as the product.

Section 14 Transport information

14.1 UN number: 1191

14.2 Proper shipping name: Octyl aldehydes

14.3 Transport hazard class(es): 3

14.4 Packing group: III

14.5 Environmental hazards: Yes

14.6 Special precautions for user: Tunnel Code (ADR) : D/E

14.7 Transport in bulk according to Annex II of Marpol and the IBC code: Not applicable

Section 15 Regulatory information

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

Statutory instrument SI 2009 No 716 The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009

Regulation 2037/2000 Substances that deplete the ozone layer : Not applicable

Regulation EC 689/2008 Concerning the import and export of dangerous chemicals : Not listed

Regulation EC 1907/2006 REACH : Not a candidate for authorisation

15.2 Chemical safety assessment

No data available

Section 16 Other information

Changes since the last update:

Section 2 - revised hazard information
Section 3 - revised composition information
Section 4 - revised first aid measures
Section 5 - revised firefighting measures
Section 6 - revised accidental release measures
Section 7 - revised handling and storage data
Section 8 - revised exposure controls/personal protection data
Section 9 - revised physical and chemical properties
Section 10 - revised stability and reactivity data
Section 11 - revised toxicological information
Section 12 - revised ecological information
Section 14 - revised transport information

List of abbreviations used in section 2 to 15:

H226 : Flammable liquid and vapour
H315 : Causes skin irritation
H319 : Causes serious eye irritation
H411 : Toxic to aquatic life with long lasting effects
ACh2 : Aquatic chronic 2
Eye2 : Eye irritation 2
Fla3 : Flammable liquid 3
Ski2 : Skin irritation 2

The information in this Health and Safety Data Sheet is, to the best of our knowledge, information and belief, correct and consistent with the state of technical information available at the date of its publication. However, data is supplied without warranty and MADAR Corporation Ltd. does not accept liability for any loss, injury and/or damage that results from use or misuse of the information herein. This document does not constitute a contract to supply to or for any specification or application.

Issue: 9 Iss date: 18.09.2018



SPECIFICATION

ALDEHYDE C8

Iss date: 18/12/2013

Issue : 4

Appearance	:	Colourless to pale yellow liquid
Odour	:	Tangy, citrus note, slightly musty
Refractive Index @ 20°C	:	1.4170 to 1.4260
Specific Gravity @ 20°C	:	0.8110 to 0.8390
Purity	:	>98%

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Product Statement

27th September 2018

ALDEHYDE C8

We hereby confirm that the above material is suitable for vegetarian and vegan use.

We hereby confirm that the above material's country of origin is the UK.

We hereby confirm that the above material does not have any specific restrictions according to the 48th amendment to the IFRA code of practice.

This information is correct to the best of our knowledge and belief. It is for the customer to decide if the material is suitable for their intended use, MADAR Corporation Ltd cannot accept liability for loss, injury or damage which may result from the use of this material or the information above.



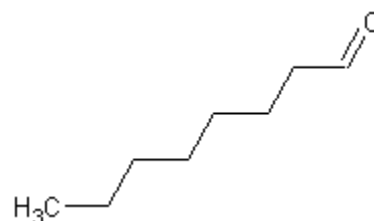
Technical Data Sheet

ALDEHYDE C8

Issue: 9

IUPAC Name : Octanal

CAS number: 124-13-0
EU number: 204-683-8
FEMA number: 2797
Molecular formula: C₈ H₁₆ O
Molecular mass: 128.21
Annex VI ref:
Reach registration: 01-2119638274-38-xxxx
INCI name: Octanal



Flash point: 51 °C
Melting point: 12 to 15 °C @ 760 mm/Hg
Boiling point: 171 to 173 °C @ 760 mm/Hg
Heavy metals: Material tested for heavy metals according to Quality Schedule. Not all batches tested. Quality schedule selects a representative number of batches for testing.
Pesticides: Not tested
Natural status: This material is not natural according to EU Directive 1334/2008
Kosher status: Kosher batches of this material are available.
Halal status: This material is suitable for Halal use but not certified as such.
Food grade status: This material is food grade according with Article 14 of EU Directive 178/2002
GMO status: Contains no modified material according to 1829/2003/EC and 1830/2003/EC
Storage: Store in full, dry, airtight containers below -20 °C, away from sources of heat and light
Food allergens: This material is free from recognised food allergens as defined by EU regulation 1169/2011
TSE statement: This material is of entirely synthetic origin and therefore does not contain any animal derived material, neither has it been in contact with any animal derived material
Additives: This material contains Tocopherol at 0.015%

Technical Data Sheet

ALDEHYDE C8

Issue:9

Fragrance sensitisers (typical values):

None found:	X
Amyl cinnamal:	
Benzyl alcohol:	
Cinnamyl alcohol:	
Citral:	
Eugenol:	
Hydroxycitronellal:	
Isoeugenol:	
Amylcinnamyl alcohol:	
Benzyl salicylate:	
Cinnamal:	
Coumarin:	
Geraniol:	
Anise alcohol:	
Benzyl cinnamate:	
Lylal:	
Farnesol:	
Lilial:	
Linalool:	
Benzyl benzoate:	
Hexyl cinnamal:	
Citronellol:	
Limonene:	
Methyl 2-octynoate:	
Alpha-isomethyl ionone:	
Oakmoss extract:	
Treemoss extract:	

With reference to point 4 of Article 14 EU 178/2002, this material should not be consumed independently, only as part of a larger flavouring compound. It is for the user to decide the suitability and concentration of this material appropriate for its specific use.

With reference to point 5 of Article 14 EU 178/2002, this material has been sieved to <1.5 mm to eliminate extraneous matter, and will not putrefy, deteriorate or decay to an unsafe level during the entirety of its shelf life.

Iss: 9

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