

# **CERTIFICATE OF ANALYSIS**

Batch: 4545608 ALDEHYDE C10

**Best Before End: June 2027** 

TEST REQUIREMENT RESULT

Appearance : Colourless to very pale yellow. : Conforms

Odour : Citrus-like, floral. : Conforms

Refractive index : 1.4260 to 1.4300 :1.4272

@ 20°C

Specific gravity : 0.8240 to 0.8350 : 0.8274

@ 20°C

Purity : >98% : 98.13%

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# **Technical Certificate**

24<sup>th</sup> May 2023

# **Product**

Aldehyde C10

We hereby confirm that the above material is not listed as a CMR.



# **Technical Certificate**

24th May 2023

# **Product**

Aldehyde C10

Please find below the manufacturing flow chart for the above material

Starting materials + Catalyst

Chemical reaction

Distillation

Analysis

Stabiliser added

Packing



#### **SAFETY DATASHEET**

Print date: 24/05/2023

Date of issue: 22/05/2023

Issue: 10

#### **ALDEHYDE C10**

This datasheet is prepared in accordance with EU regulations 1907/2006 as amended by 2015/830 and 2020/878

# Section 1 Identification of the substance/mixture and of the company

#### 1.1 Product Identifier

Name of material: Decanal

REACH registration number: 01-2119967771-26-xxxx

IUPAC name: Decanal

### 1.2 Relevant identified uses of the mixture and uses advised against

Fragrances and flavours

## 1.3 Details of the supplier of the safety data sheet

Madar Corporation Limited 19 - 20 Sandleheath Industrial Estate Fordingbridge SP6 1PA UK

Tel: +44 (0)1425 655 555 techhnical@madarcorporation.co.uk

## 1.4 Emergency telephone number

+44 (0)1425 655 555 (office hours only)

#### Section 2 Hazards Identification

# 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Eye irritation 2 Aquatic chronic 3

#### 2.2 Label elements

#### Symbols:



Signal word :

Hazard statements : H319 Causes serious eye irritation

H412 Harmful to aquatic life with long lasting effects

Precaution statements: P264 Wash thoroughly after handling

P273 Avoid release to the environment

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

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: Decanal

Characterisation: Acyclic aldehydes

CAS number: 112-31-2 EC number: 203-957-4

Information on constituents present contributing to the hazard classification

Name	Percent	CAS	EC no	H phrases	Hazard abbreviations
Decanal	>98%	112-31-2	203-957-4	H319, 412	Eye2, ACh3

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).

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: 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, NOx) and toxic gases can be formed.

### 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 Physical/chemical properties

#### 9.1 Information on basic physical and chemical properties

Appearance: Colourless to very pale yellow.

Odour: Citrus-like, floral.
Odour threshold: Data not available
pH: Data not available

Melting point: 17 to  $18 \,^{\circ}\text{C}$  @ 760 mm/Hg Boiling point: 207 to  $209 \,^{\circ}\text{C}$  @ 760 mm/Hg

Flash point: 87℃

Evaporation rate: Data not available Flammability: Data not available

Upper flammability limit: 5.4% Lower flammability limit: 0.8%

Upper explosive limit:

Lower explosive limit:

Vapour pressure:

Vapour density:

Vapour density:

Data not available

0.103 mm/Hg @ 25 °C

0.103 mm/Hg @ 25 °C

Data not available

0.830 @ 20 °C

Solubility:

Data not available

Partition coefficient n-o: 4.09

Auto ignition temperature: Data not available Decomposition temperature: Data not available Data not available 1.7 mPas @ 20 ℃ Explosive properties: Data not available Data not available

#### 9.2 Other information

No relevent 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 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 3730 mg/kg LD50 Dermal Rabbit 5040 mg/kg

Data not available

Skin corrosion/irritation: Data not available
Serious eye Data not available

damage/irritation:

Respiratory or skin Data not available

sensitisation:

Carcingenicity:

Germ cell mutagenicity: Data not available

Reproductive toxicity: Data not available STOT - single exposure: Data not available

Aspiration hazard: Data not available

STOT - repeat exposure: Data not available

#### 11.2 Information on other hazards

11.2.1 Endocrine

Data not available

disrupting properties:

11.2.2 Information on other hazards:

Data not available

# Section 12 Ecological information

#### 12.1 Toxicity

Data not available

### 12.2 Persistance 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 Endocrine disrupting properties:

Data not available

## 12.7 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:** Not Restricted for Transport

14.2 Proper shipping name: -

14.3 Transport hazard class(es): -

- 14.4 Packing group:
- 14.5 Environmental hazards: No
- **14.6** Special precautions for user: Tunnel Code (ADR) : ---
- 14.7 Transport in bulk according to IMO instruments: 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:

## List of abbreviations used in section 2 to 15:

H319 : Causes serious eye irritation

H412 : Harmful to aquatic life with long lasting effects

ACh3 : Aquatic chronic 3 Eye2 : Eye irritation 2

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# **SPECIFICATION**

**ALDEHYDE C10** 

Iss date: 23/02/2021

Issue: 4

Appearance : Colourless to very pale yellow.

Odour : Citrus-like, floral.

Refractive Index @ 20 ℃ : 1.4260 to 1.4300

Specific Gravity @ 20 °C : 0.8240 to 0.8350

Purity : >98%

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Printed: 24 May 2023



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# **Technical Data Sheet**

ALDEHYDE C10 Issue: 10

IUPAC name: Decanal

CAS number: 112-31-2

EU number: 203-957-4
FEMA number: 2362
Molecular formula: C10 H20 O

Molecular mass: 156.27

Annex VI ref:

Reach registration: 01-2119967771-26-xxxx

INCI name: Decanal

Flash point: 87℃

Melting point: 17 to  $18 \,^{\circ}\text{C} \,^{\circ}\text{Q}$  760 mm/Hg Boiling point: 207 to  $209 \,^{\circ}\text{C} \,^{\circ}\text{Q}$  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: This material is certified Kosher

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

Palm oil status: This material has been manufactured using Palm Oil, or Palm Oil Derivatives

Vegetarian status: This material is suitable for Vegetarians and Vegans

Shelf life: 12 months when stored correctly

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 no additives

Food suitability: This material is Generally Regarded As Safe for use in foods.

### **Technical Data Sheet**

**300818 ALDEHYDE C10 Issue:10** Page : 2 of 2

# Fragrance sensitisers (typical values):

None found:  Amyl cinnamal:  Benzyl alcohol:  Cinnamyl alcohol:  Citral:  Eugenol:  Hydroxycitronellal: Isoeugenol:  Amylcinnamyl alcohol:  Benzyl salicylate:  Cinnamal:  Coumarin:  Geraniol:  Anise alcohol:  Benzyl cinnamate:  Lyral:  Farnesol:  Lilial:  Linalool:  Benzyl benzoate:  Hexyl cinnamal:  Citronellol:  Limonene:  Methyl 2-octynoate:  Alpha-isomethyl ionone:  Oakmoss extract:  Treemoss extract:		
Benzyl alcohol: Cinnamyl alcohol: Citral: Eugenol: Hydroxycitronellal: Isoeugenol: Amylcinnamyl alcohol: Benzyl salicylate: Cinnamal: Coumarin: Geraniol: Anise alcohol: Benzyl cinnamate: Lyral: Farnesol: Lilial: Linalool: Benzyl benzoate: Hexyl cinnamal: Citronellol: Limonene: Methyl 2-octynoate: Alpha-isomethyl ionone: Oakmoss extract:	None found:	Х
Cinnamyl alcohol: Citral: Eugenol: Hydroxycitronellal: Isoeugenol: Amylcinnamyl alcohol: Benzyl salicylate: Cinnamal: Coumarin: Geraniol: Anise alcohol: Benzyl cinnamate: Lyral: Farnesol: Lilial: Linalool: Benzyl benzoate: Hexyl cinnamal: Citronellol: Limonene: Methyl 2-octynoate: Alpha-isomethyl ionone: Oakmoss extract:	Amyl cinnamal:	
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Eugenol: Hydroxycitronellal: Isoeugenol: Amylcinnamyl alcohol: Benzyl salicylate: Cinnamal: Coumarin: Geraniol: Anise alcohol: Benzyl cinnamate: Lyral: Farnesol: Lilial: Linalool: Benzyl benzoate: Hexyl cinnamal: Citronellol: Limonene: Methyl 2-octynoate: Alpha-isomethyl ionone: Oakmoss extract:	Cinnamyl alcohol:	
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Hexyl cinnamal: Citronellol: Limonene: Methyl 2-octynoate: Alpha-isomethyl ionone: Oakmoss extract:	Linalool:	
Citronellol: Limonene: Methyl 2-octynoate: Alpha-isomethyl ionone: Oakmoss extract:	Benzyl benzoate:	
Limonene:  Methyl 2-octynoate:  Alpha-isomethyl ionone:  Oakmoss extract:	Hexyl cinnamal:	
Methyl 2-octynoate: Alpha-isomethyl ionone: Oakmoss extract:	Citronellol:	
Alpha-isomethyl ionone Oakmoss extract:	Limonene:	
Oakmoss extract:	Methyl 2-octynoate:	
	Alpha-isomethyl ionone	
Treemoss extract:	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 < 2mm to eliminate extraneous matter, and will

not putrefy, deteriorate or decay to an unsafe level during the entirety of its shelf life.

The information in this Technical Datasheet is correct to the best of our knowledge, information and belief at the date of its publication and is, in our opinion consistent with the state of technical knowledge available at that date. However, we cannot accept liability for loss, injury or damage which may result from use of this material or the information contained in this sheet.