



ALDEHYDE C-14 -REACH REGISTERED

BATCH NUMBER: 4417204

BEST BEFORE: DECEMBER 2022

ALD0029

FEMA#: 3091

CAS#: 104-67-6

PRODUCT IDENTIFICATION

| | |
|-------------------|--|
| PRODUCT NAME | ALDEHYDE C-14 - REACH REGISTERED |
| MOLECULAR FORM | C ₁₁ H ₂₀ O ₂ |
| MOLECULAR WT | 184.28 |
| MELTING POINT (C) | 10 deg C |
| BOILING POINT (C) | 297 deg C |
| FLASH POINT (F) | 293 deg F |

| PHYSICAL SPECIFICATIONS | RANGE | RESULTS |
|-------------------------|--|----------|
| APPEARANCE | COLORLESS TO PALE YELLOW LIQUID | CONFORMS |
| ODOR | SWEET, OILY FRUITY, PEACH LIKE ODOR | CONFORMS |
| SPECIFIC GRAVITY (25C) | 0.9420 to 0.9450 | 0.9427 |
| REFRACTIVE INDEX (20C) | 1.4480 to 1.4530 | 1.4505 |
| SOLUBILITY | SOLUBLE IN ALCOHOL, FIXED OILS, PG; INSOLUBLE IN GLYCERINE, WATER | PASSES |

| ANALYTICAL SPECIFICATIONS | RANGE | RESULTS |
|---------------------------|---------------|---------|
| PURITY (BY GC) | 98.0% MINIMUM | 98.88% |

| OTHER SPECIFICATIONS | RANGE | RESULTS |
|-----------------------|-----------------------------|---------|
| SOLUBILITY IN ALCOHOL | 1 ML IN 5 ML OF 60% ALCOHOL | PASSES |

STABILITY
STABLE UNDER NORMAL CONDITIONS

STORAGE
STORE IN COOL DRY PLACE AWAY FROM HEAT AND SUNLIGHT

CERTIFICATE OF ANALYSIS

Date Revised: 19/03/2018



FRAGRANCE ALLERGENS

Aldehyde C14

Contains the following fragrance allergens as detailed in the 7th Amendment to the EU Cosmetic Directive 76/768/EEC:

| | Allergen | CAS number | Content % |
|----|--|-------------|-----------|
| 1 | Alpha isomethylionone | 127-51-5 | - |
| 2 | Amyl cinnamal | 122-40-7 | - |
| 3 | Amylcinnamyl alcohol | 101-85-9 | - |
| 4 | Anisyl alcohol | 105-13-5 | - |
| 5 | Benzyl alcohol | 100-51-6 | - |
| 6 | Benzyl benzoate | 120-51-4 | - |
| 7 | Benzyl cinnamate | 103-41-3 | - |
| 8 | Benzyl salicylate | 118-58-1 | - |
| 9 | Butylphenyl methylpropional (Lilial) | 80-54-6 | - |
| 10 | Cinnamal | 104-55-2 | - |
| 11 | Cinnamyl alcohol | 104-54-1 | - |
| 12 | Citral | 5392-40-5 | - |
| 13 | Citronellol | 106-22-9 | - |
| 14 | Coumarin | 91-64-5 | - |
| 15 | Eugenol | 97-53-0 | - |
| 16 | Farnesol | 4602-84-0 | - |
| 17 | Geraniol | 106-24-1 | - |
| 18 | Hexyl cinnamal | 101-86-0 | - |
| 19 | Hydroxycitronellal | 107-75-5 | - |
| 20 | Hydroxyisohexyl 3-cyclohexene carboxaldehyde (Lyral) | 31906-04-4 | - |
| 21 | Isoeugenol | 97-54-1 | - |
| 22 | Limonene | 5989-27-5 | - |
| 23 | Linalool | 78-70-6 | - |
| 24 | Methyl 2-octynoate | 111-12-6 | - |
| 25 | Evernia furfuracea (Treemoss) extract | 90028-67-4 | - |
| 26 | Evernia prunastri (Oakmoss) extract | 90028-68-55 | - |

(All absent)



PROCESS FLOW CHART

ALDEHYDE C-14





GMO CERTIFICATE

Madar Corporation Ltd hereby certifies that:

ALDEHYDE C-14

to the best of its knowledge does not derive from a genetically modified source (GMO) nor have
GMO materials been used in its manufacture or as additives.



IFRA CERTIFICATE

ALDEHYDE C-14

We hereby certifies that the above material complies with the requirements of the INTERNATIONAL FRAGRANCE ASSOCIATION - IFRA-48th Amendment / published June 10th 2015) provided it is used in following application (class) at a maximum concentration level of:

| IFRA category | Maximum level of use (%) |
|---------------|--------------------------|
| Class 1 | Not restricted |
| Class 2 | Not restricted |
| Class 3A | Not restricted |
| Class 3B | Not restricted |
| Class 3C | Not restricted |
| Class 3D | Not restricted |
| Class 4A | Not restricted |
| Class 4B | Not restricted |
| Class 4C | Not restricted |
| Class 4D | Not restricted |
| Class 5 | Not restricted |
| Class 6 | Not restricted |
| Class 7A | Not restricted |
| Class 7B | Not restricted |
| Class 8A | Not restricted |
| Class 8B | Not restricted |
| Class 9A | Not restricted |
| Class 9B | Not restricted |
| Class 9C | Not restricted |
| Class 10A | Not restricted |
| Class 10B | Not restricted |
| Class 11 | Not restricted |

The above values were calculated based on the following IFRA restricted materials: <none contained>

The IFRA Standards regarding use restrictions are based on safety assessments by the Panel of Experts of the RESEARCH INSTITUTE FOR FRAGRANCE MATERIALS (RIFM) and are enforced by the IFRA Scientific Committee.

It is the ultimate responsibility of our customer to ensure the safety of the final product by further testing if need be. Evaluation of the Fragrance ingredient was made according to the safety requirements contained in the relevant section of the IFRA Code of Practice.

| IFRA category includes | IFRA category |
|--|----------------------|
| Toys (****) | Class 1A |
| Insect Repellent intended to be applied on the skin | Class 1B |
| Lip Products of all types (solid and liquid lipsticks, balms, clear or coloured etc...)(****) | Class 2 |
| Deodorant and Antiperspirant products of all types (spray, stick, roll-on, under-arm and body etc...) | Class 3A |
| Hydroalcoholic products applied to recently shaved skin (EdT range) | Class 3B |
| Hydroalcoholic products applied to recently shaved skin (fine fragrance range) | Class 3C |
| Eye Products of all types (eye shadow, mascara, eyeliner, eye make-up, etc...) | Class 3D |
| Men's Facial Creams, Balms, Wipes, Refreshing Tissues | Class 4A |
| Tampons | Class 4B |
| Hydroalcoholic Products applied to unshaved skin (EdT range) | Class 4C |
| Ingredients of Perfume Kits, Scent Strips for Hydroalcoholic Products, "scratch and sniff", other paper products | Class 4D |
| Hydroalcoholic Products applied to unshaved skin, Fine Fragrance range | Class 5A |
| Hair Styling Aids Sprays of all types (pumps, aerosol sprays, etc...). Hair Deodorant | Class 6 |
| Body Creams, Oils, Lotions of all types (including baby creams, lotions, oils) | Class 7 |
| Fragrance Compounds for Cosmetic Kits, Foot Care Products | Class 8 |
| Fragrancing Creams of all types | Class 9A |
| Women's Facial Creams/Facial Make-up/Facial Wipes. Facial Masks, Hand Cream | Class 9B |
| Mouthwash, Toothpaste (****) | Class 9C |
| Intimate Wipes, Baby Wipes | Class 10A |
| Make-up Removers of all types (not including face cleansers) | Class 10B |
| Hair Styling Aids Non-Spray of all types (mousse, gels, leave-in conditioners etc...) | Class 10B |
| Nail Care, all Powders & Talcs (including baby powders and talcs) | Class 10B |
| Liquid Soap, Bar Soap (toilet soap), Depilatory, | Class 11A |
| Conditioner (rinse-off), Shampoos of all types (including baby shampoos) | Class 11A |
| Face Cleansers of all types (washes, gels, scrubs, etc...) Shaving Creams of all types (stick, gels, foams, etc...) | Class 11A |
| Body Washes of all types (including baby washes) and Shower Gels of all types | Class 11A |
| Bath Gels, Foams, Mousses, Salts, Oils and other products added to bathwater | Class 11A |
| Feminine pads/Liners | Class 11A |
| Aerosols (including air fresheners sprays but not including deodorant/antiperspirants, hair styling aids spray) | Class 11A |
| Hand wash/Machine Wash Laundry Detergents of all types (liquid, powder, tablet, etc...) including Laundry Bleaches | Class 11A |
| Other Household Cleaning Products (fabric cleaners, soft surface cleaners, carpet cleaners etc...), Dry Cleaning Kits | Class 11A |
| Fabric Softeners of all types including softener sheets. Hand Dishwashing Detergent. | Class 11A |
| Hard Surface Cleaners of all types (bathroom and kitchen cleansers, furniture polish etc...), Shampoos for pets | Class 11A |
| Diapers | Class 11A |
| All non-skin contact, including: | Class 11A |
| Air Fresheners and fragrancing of all types (excluding aerosol products): plug-ins, solid substrate, membrane delivery; Toilet blocks; Joss Sticks, Incense; Insecticides (mosquito coil, paper, electrical, etc...excluding aerosols); Plastic articles (excluding toys); Candles; Fuels; Paints. | Class 11A |
| All incidental skin contact, including: | Class 11B |
| Machine Dish wash Detergents and Deodorizers. Machine only Laundry Detergents (e.g. liquid tabs) | Class 11B |
| Deodorizers/Maskers (e.g. fabric drying machine deodorizers, carpet powder) | Class 11B |
| Pot pourri, fragrancing sachets, liquid refills for air fresheners, etc... | Class 11B |
| Shoe polishes; Cat Litter; Animal Sprays (excluding aerosols); Treated Textiles; Odoured Distilled Water | Class 11B |

(****) Fragrance materials for use in these applications need also FEMA-GRAS conformity.

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Product name ALDEHYDE

C-14

Issue date 28-Jan-2015

Revision date 14-Sep-2018

Version 1

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

1.1. Product Identifier

| | |
|----------------------------------|--|
| Product code | ALD0029 |
| <i>Product name</i> | ALDEHYDE C-14 |
| REACH registration number | 01-2119959333-34-XXXX |
| EC No. | 203-225-4 |
| CAS No | 104-67-6 |
| Chemical Name | 5-Heptyldihydro-2(3H)-furanone |
| Synonyms | gamma-Undecalactone / Undecan-4-olide |
| Pure substance/mixture | Substance |
| Formula | C ₁₁ H ₂₀ O ₂ |
| Molecular weight | 184.28 |

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

| | |
|------------------------------------|--------------|
| Sold to the general public? | No |
| Recommended Use | Industry Use |

1.3. Details of the supplier of the safety data sheet

Supplier

Madar Corporatiion Limited

19 - 20 Sandleheath Industrial Estate
Fordingbridge
Hampshire
SP6 1PA
Tel: (+44) 1425 655555

For further information, please contact

Contact Point technical@madarcorporation.co.uk

E-mail address

1.4. Emergency telephone number

| | |
|---------------------|----------|
| Emergency telephone | CHEMTREC |
|---------------------|----------|

| |
|---------------------------------------|
| Emergency telephone - +1-703-741-5970 |
|---------------------------------------|

| | |
|--------|------------|
| Europe | CCN# 17256 |
|--------|------------|

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

| | |
|---------------------------------|---------------------|
| Chronic aquatic toxicity | Category 3 - (H412) |
|---------------------------------|---------------------|

2.2. Label Elements

Product identifier

Hazard statements

H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements

P273 - Avoid release to the environment

P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other Hazards

H316 - Causes mild skin irritation H402 - Harmful to aquatic life

SECTION 3: Composition/information on ingredients**3.1 Substances****Chemical nature**

Lactone.

| Chemical Name | EC No. | CAS No. | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH registration number |
|---------------------|---------|----------|----------|---|---------------------------|
| gamma Undecalactone | Present | 104-67-6 | 100 | Aquatic Acute 3 (H402) (ECHA) Skin Irrit. 3 (H316) (ECHA) Aquatic Chronic 3 (H412) (ECHA) | No data available |

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures**4.1. Description of first aid measures**

| | |
|---------------------|--|
| Inhalation | Remove to fresh air. |
| Skin contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In the case of skin irritation or allergic reactions see a physician. |
| Eye Contact | Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. Do not rub affected area. If eye irritation persists: Get medical advice/attention. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. |

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

Symptoms None known.

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

Note to physicians Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media

Dry chemical, CO2, water spray or alcohol-resistant foam

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors

Hazardous combustion products Irritating or toxic substances may be emitted upon burning, combustion, or decomposition.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****Personal precautions**

Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. Stop leak if you can do it without risk.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Collect spillage.

6.3. Methods and material for containment and cleaning up**Methods for Containment**

Prevent further leakage or spillage if safe to do so. Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities**Storage Conditions**

Protect from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | |
|---------------------------------------|----------------------|
| Derived No Effect Level (DNEL) | Workers |
| dermal | 5.38 mg/kg bw/day |
| Inhalation | 19 mg/m ³ |

| | |
|---------------------------------------|---------------------------|
| Derived No Effect Level (DNEL) | General Population |
| oral | 2.7 mg/kg bw/day |
| dermal | 2.7 mg/kg bw/day |
| Inhalation | 4.68 mg/m ³ |

Predicted No Effect Concentration (PNEC)

| | |
|----------------------------|-------------------------|
| Fresh Water | 5.85 µg/L |
| Sea Water | 0.585 µg/L |
| Sea sediment | 0.063 mg/kg sediment dw |
| Soil | 0.122 mg/kg soil dw |
| Impact on Sewage Treatment | 80 mg/L |

8.2. Exposure controls

| | |
|-----------------------------|---|
| Engineering controls | Showers Eyewash stations Ventilation systems Ensure adequate ventilation, especially in confined areas |
|-----------------------------|---|

Personal Protective Equipment

| | |
|---------------------------------|--|
| Eye/Face Protection | Wear safety glasses with side shields (or goggles). |
| Hand protection | Wear protective gloves. |
| Skin and Body Protection | Wear suitable protective clothing. |
| Respiratory protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |

| | |
|--|---------------------------------------|
| Environmental exposure controls | Prevent product from entering drains. |
|--|---------------------------------------|

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | | | |
|-----------------------|--------------------------|-----------------------|---------------------|
| Physical state | Liquid | Odor | Characteristic Odor |
| Appearance | Clear | Odor threshold | Not applicable |
| Color | Colorless to Pale Yellow | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---------------------------------------|-------------------|-------------------------|
| pH | | |
| Melting point / freezing point | -9.5 °C / 14.9 °F | (101.3kPa) |
| Boiling point / boiling range | 297 °C / 567 °F | (101.3kPa) |

| | | |
|---------------------------|-------------------|-----------------|
| Flash Point | 145 °C / > 212 °F | CC (closed cup) |
| Evaporation Rate | | |
| Flammability (solid, gas) | | |
| Flammability Limit in Air | | |
| Upper flammability limit: | | |
| Lower flammability limit: | | |
| Vapor pressure | 0.00027kPa | (25°C) |
| Vapor Density | | |
| Specific gravity | 0.942 - 0.945 | (25°C) |
| Water solubility | Insoluble | |
| solubility(ies) | | |
| Partition coefficient | 3.6 Log Kow | (25°C) |
| Autoignition Temperature | >256 °C / >493 °F | |
| Decomposition temperature | | |
| Kinematic viscosity | <10mPa.s | (20°C) |
| Dynamic viscosity | | |
| Explosive properties | Not an explosive | |
| Oxidizing properties | Not oxidising | |

9.2. Other information

| | |
|------------------|----------------|
| Molecular weight | 184.28 |
| VOC content (%) | Not applicable |
| Density | Not applicable |
| Bulk Density | Not applicable |

SECTION 10: Stability and reactivity**10.1. Reactivity****10.2. Chemical stability**

Stable under recommended storage conditions.

Explosion data

| | |
|----------------------------------|-------|
| Sensitivity to Mechanical Impact | None. |
| Sensitivity to Static Discharge | None. |

10.3. Possibility of hazardous reactions**Possibility of Hazardous Reactions**

None under normal processing.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

None under normal use conditions.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity****Product Information**

Harmful if inhaled.

| | |
|---------------------|---|
| Inhalation | Avoid breathing vapors or mists. |
| Eye Contact | Avoid contact with eyes. |
| Skin contact | Avoid contact with skin. Causes mild skin irritation. |
| Ingestion | No known hazard by swallowing. |

Unknown acute toxicity

- 100 % of the mixture consists of ingredient(s) of unknown toxicity.
- 100 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
- 100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------------|--------------------|--------------------|-----------------|
| gamma Undecalactone | >2,000 mg/kg (Rat) | >2,000 mg/kg (Rat) | |

| | |
|--|--|
| Skin corrosion/irritation | Causes mild skin irritation. |
| Serious eye damage/eye irritation | Not classified. |
| Sensitization | Not expected to cause skin sensitization. |
| Germ cell mutagenicity | Not classified. |
| Carcinogenicity | None known. |
| Reproductive toxicity | This product does not contain any known or suspected reproductive hazards above the threshold value. |
| STOT - single exposure | Not classified. |
| STOT - repeated exposure | Not classified. |
| Aspiration hazard | Not classified. |

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

12.2. Persistence and degradability

Readily biodegradable.

12.3. Bioaccumulative potential

Low potential for bioaccumulation.

Bioconcentration factor (BCF) 421 L/Kg

12.4. Mobility in soil**Mobility in soil**

709.2 Koc (Kow method)

12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

12.6. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|--|---|
| Waste from Residues/Unused Products | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| Contaminated packaging | Do not reuse container. Improper disposal or reuse of this container may be dangerous and illegal. |

SECTION 14: Transport information

IMDG

| | |
|--|--------------------------|
| 14.1 UN/ID no | Not regulated |
| 14.2 Proper Shipping Name | Not regulated |
| 14.3 Hazard Class | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Marine pollutant | Not applicable |
| 14.6 Special Provisions | None |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | No information available |

RID

| | |
|----------------------------------|----------------|
| 14.1 UN/ID no | Not regulated |
| 14.2 Proper Shipping Name | Not regulated |
| 14.3 Hazard Class | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |

ADR

| | |
|----------------------------------|----------------|
| 14.1 UN/ID no | Not regulated |
| 14.2 Proper Shipping Name | Not regulated |
| 14.3 Hazard Class | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |

ICAO (air)

| | |
|----------------------------------|----------------|
| 14.1 UN/ID no | Not regulated |
| 14.2 Proper Shipping Name | Not regulated |
| 14.3 Hazard Class | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |

IATA

| | |
|----------------------------------|---------------|
| 14.1 UN/ID no | Not regulated |
| 14.2 Proper Shipping Name | Not regulated |
| 14.3 Hazard Class | Not regulated |
| 14.4 Packing group | Not regulated |

14.5 Environmental hazard Not applicable
14.6 Special Provisions None

SECTION 15: Regulatory information

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorization and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

Full text of H-Statements referred to under section 3

H402 - Harmful to aquatic life

H316 - Causes mild skin irritation

H412 - Harmful to aquatic life with long lasting effects

Issue date 28-Jan-2015

Revision date 14-Sep-2018

Revision note Not applicable.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Classification and labeling according to the IFRA/IOFI Labeling Manual 2017.

End of Safety Data Sheet



ALDEHYDE C-14

ALD0029

CAS#: 104-67-6

FEMA#: 3091

PRODUCT IDENTIFICATION

| | |
|-------------------|---------------|
| PRODUCT NAME | ALDEHYDE C-14 |
| MOLECULAR FORM | C11H20O2 |
| MOLECULAR WT | 184.28 |
| MELTING POINT (C) | 10 deg C |
| BOILING POINT (C) | 297 deg C |
| FLASH POINT (F) | 293 deg F |
| SHELF LIFE (DAYS) | 365 |

| PHYSICAL SPECIFICATIONS | RANGE | METHOD |
|-------------------------|--|--------------|
| APPEARANCE | COLORLESS TO PALE YELLOW LIQUID | VISUAL |
| ODOR | SWEET, OILY FRUITY, PEACH LIKE ODOR | ORGANOLEPTIC |
| SPECIFIC GRAVITY (25C) | 0.9420 to 0.9450 | FCC METHOD |
| REFRACTIVE INDEX (20C) | 1.4480 to 1.4530 | FCC METHOD |
| SOLUBILITY | SOLUBLE IN ALCOHOL, FIXED OILS, PG; INSOLUBLE IN GLYCERINE, WATER | FCC METHOD |

| ANALYTICAL SPECIFICATIONS | RANGE | METHOD |
|---------------------------|---------------|-----------|
| PURITY (BY GC) | 98.0% MINIMUM | CHEM_25.M |

| OTHER SPECIFICATIONS | RANGE | METHOD |
|-----------------------|-----------------------------|------------|
| SOLUBILITY IN ALCOHOL | 1 ML IN 5 ML OF 60% ALCOHOL | FCC METHOD |

STABILITY

STABLE UNDER NORMAL CONDITIONS

STORAGE

STORE IN COOL DRY PLACE AWAY FROM HEAT AND SUNLIGHT

BiOrigins, 19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK
Tel: 01425 655555 Email: technical@madarcorporation.co.uk



VEGAN / VEGETARIAN DECLARATION

Madar Corporation Ltd. hereby certifies that:

ALDEHYDE C-14

to the best of its knowledge is suitable for both vegan and vegetarian diets.