

This Safety Data Sheet cancels and replaces all preceding SDS for this product.

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

081057 D

YUZU ALDEHYDE © Firmenich product

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

Not for personal use in this form or concentration. Intended to be used in the manufacture of products for consumers.

1.3 Details of the supplier of the safety data sheet

Bella Mistry

Firmenich UK Ltd Hayes Road, Southall MIDDLESEX UB2 5NN - UNITED KINGDOM bella.mistry@firmenich.com

Tel: +44 208 843 61 11, Fax: +44 208 843 62 38

1.4 Emergency telephone number

Tel:+41.22.780.37.90 Available 24/7 (NCEC)

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) N° 1272/2008 [CLP/GHS] as amended

Aspiration Hazard - Cat. 1	H304
Skin Irritation - Cat. 2	H315
Skin Sensitization - Cat. 1	H317
Environmental Hazard (acute) - Cat. 1	H400
Environmental Hazard (chronic) - Cat. 1	H410

Classification according to 67/548/EEC or 1999/45/EC as amended

Symbols:

Reference: GB

Xn Harmful

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N Dangerous for the environment

Risks Phrases:

R38 Irritating to skin.

R43 May cause sensitization by skin contact.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

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Additional information

Full text of listed statements: See section 16

2.2 Label elements

Hazard pictograms:







Signal Word:

Danger

Hazard Statements:

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

May cause an allergic skin reaction. H317

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling. Avoid release to the environment. P273

Contaminated work clothing should not be allowed out of the workplace. P272 P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Supplemental Hazard information (EU):

Contains: Citral, Limonene, Geranyl Acetate, Pinene, Beta-, Pinene, Alpha-. May produce an allergic reaction.

Hazard Inducers:

limonene

2.3 Other hazards

No data available at this time.

3 COMPOSITION/INFORMATION ON INGREDIENTS

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3.2 Mixtures

Mixture of aromatic substances.

Contains:

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>= 30.0 < 40.0%

Limonene

N° CAS: 0000138-86-3 N° EINECS: 205-341-0

N° Index: 601-029-00-7

>= 0.5 < 1.0%

Bicyclo[3.1.1]Heptane, 6,6-Dimethyl-2-Methylene-

N° CAS : 0000127-91-3 N° EINECS: 204-872-5

>= 0.1 < 0.5%

2,6-Octadienal, 3,7-Dimethyl-N° CAS: 0005392-40-5 N° EINECS: 226-394-6

N° Index: 605-019-00-3

>= 0.1 < 0.5%

2,6-Octadien-1-Ol, 3,7-Dimethyl-, Acetate, (E)-

N° CAS: 0000105-87-3 N° EINECS: 203-341-5

>= 0.1 < 0.5%

Bicyclo[3.1.1]Hept-2-Ene, 2,6,6-Trimethyl-

N° CAS: 0000080-56-8 N° EINECS: 201-291-9 Classification: Xn N - R38,R43,R50/53,R65,R10

GHS Classification:

Aspiration Hazard - Cat. 1 [H304] Skin Sensitization - Cat. 1B [H317] Skin Irritation - Cat. 2 [H315]

Environmental Hazard (acute) - Cat. 1 [H400] Environmental Hazard (chronic) - Cat. 1 [H410]

Flammable Liquid - Cat. 3 [H226]

Classification: Xn - R43,R65,R10,R38

GHS Classification:

Aspiration Hazard - Cat. 1 [H304] Skin Sensitization - Cat. 1B [H317] Skin Irritation - Cat. 2 [H315] Flammable Liquid - Cat. 3 [H226]

Classification: Xi - R38,R43

GHS Classification:

Skin Sensitization - Cat. 1B [H317] Skin Irritation - Cat. 2 [H315] Eye Irritation - Cat.2 [H319]

Classification: Xi N - R51/53,R38,R43

GHS Classification:

Skin Sensitization - Cat. 1 [H317] Skin Irritation - Cat. 2 [H315]

Environmental Hazard (chronic) - Cat. 3 [H412]

Classification: Xn - R43,R65,R10,R38

GHS Classification:

Aspiration Hazard - Cat. 1 [H304] Skin Sensitization - Cat. 1B [H317] Skin Irritation - Cat. 2 [H315] Flammable Liquid - Cat. 3 [H226]

4 FIRST-AID MEASURES

4.1 Description of first aid measures

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General information:

As in all cases of potential poisoning, Obtain medical advice immediately.

In case of eye contact:

Irrigate copiously with water for at least 10 minutes. Obtain medical advice if any irritation or evidence of tissue damage persists.

In case of inhalation:

Reference: GB

Remove the individual to fresh air and keep at rest. Obtain medical advice immediately.

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In case of skin contact:

Remove contaminated clothes. Wash skin with large volumes of water.

If irritation persists, or any sign of tissue damage is apparent, obtain medical advice immediately.

In case of ingestion:

Rinse mouth with water. Obtain medical advice immediately.

4.2 Most important symptoms and effects, both acute and delayed

No information available on the product itself.

4.3 Indication of immediate medical attention and special treatment needed

None known.

5 FIRE-FIGHTING MEASURES

5.1 Extinguishing media

In the event of fire, adequate extinguishers should be used. Avoid inhalation of smoke and fumes. In case of insufficient ventilation, wear suitable respiratory equipment.

5.2 Special hazard arising from the substance or mixture

No specific hazard known.

5.3 Advice for fire-fighters

No specific advice.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Adequate protective gloves should be worn when handling spillages. No smoking. Avoid naked flames or other potential sources of ignition (eg. electrical equipment).

Avoid skin contamination and inhalation of vapour.

Individual washing routines should be followed after any potential contact.

Ensure adequate ventilation in working areas following accidental releases.

For emergency personnel:

Apply the same recommendations as section 6.1

6.2 Environmental precautions

Do not discharge directly into drains, air, into soil or into the aquatic environment.

6.3 Methods and material for containment and cleaning up

For containment:

Any absorbent used for cleaning up spillage should be disposed promptly, accordingly to local regulation.

Gross spillages should be contained by any means, and disposal of this should be in accordance with

Government Regulations.

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For cleaning-up:

Spillages should be disposed of in accordance with Governmental Regulations.

7 HANDLING AND STORAGE

Reference: GB

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7.1 Precautions for safe handling

Avoid contact with skin and eyes.

Wear adequate protective gloves protection and eye/face protection.

No smoking. Avoid any sources of ignition.

Avoid exposing to high temperature during processing.

Do not ingest or apply to the skin as such. Good personal washing routines should be followed.

Maintain adequate local and general ventilation where product is handled.

Protective measures

Keep strict control of dust accumulation to a minimum. Maintain adequate local and general ventilation where product is handled. Avoid any sources of ignition.

Advice on general occupational hygiene

Good personal washing routines should be followed.

7.2 Conditions for safe storage, including any incompatibilities

It is good general practice to store in closed, preferably full, containers away from heat sources, and protected from extremes of temperature. Do not re-use the empty container.

Respect generals rules for compatibility storage.

7.3 Specific end use(s)

Not available at this time.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.2 Exposure controls

Avoid exposing to high temperature during processing.

Maintain adequate local and general ventilation where product is handled.

Appropriate engineering controls

Maintain adequate local and general ventilation where product is handled and dispensed.

Environmental exposure controls

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Not available at this time. Minimize release to the environment.

Personal protection

Reference: GB

Respiratory protection: Where ventilation (LEV) is inadequate to prevent any inhalation of substances, use adequate respiratory apparatus.

Hand protection: Use chemical resistant gloves classified under Standard EN 374: Protective gloves against chemicals. Preferred glove barrier materials: Neoprene and Nitrile. When prolonged or frequently repeated contact may occur, a glove with a protection class of 4 or higher (breakthrough time greater than 120 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 1 or higher (breakthrough time greater than 10 minutes according to EN 374) is recommended. Thickness > or = 0,2mm.

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NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Eye protection: Adequate safety glasses should be used.

Skin protection: Wear protective clothing, overall if necessary to limit the odour contamination of personal clothing. Individual washing routines should be followed after any potential contact.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

LIQUID Appearance:

Colour: PALE YELLOW

Odour: Characteristic strong odour

according to the commercial description of the substance.

pH: Not available Melting point/range (°C): Not available Initial boiling point/range (°C): Not available $=64^{\circ}C$ Flash point (closed cup): Evaporation rate: Not available Flammability (solid/gas): Not available Upper/lower flammability or explosive Not available

limits:

Vapour pressure (Pa): Not applicable Vapour density: Not available Relative density (d 20/20): 0.905 - 0.921 Water solubility (20°C): Not applicable Partition coef. (n-octanol/water): Not applicable Auto-ignition temperature (°C): Not available Decomposition temperature: Not available Viscosity: Not available Explosive properties: Not available Oxidizing properties: Not available

9.2 Other safety information

None

Reference: GB

10 STABILITY AND REACTIVITY

10.1 Reactivity

No reaction known with water.

10.2 Chemical stability

Good stability at standard temperature.

10.3 Possibility of hazardous reactions

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Not known.

10.4 Conditions to avoid

Avoid temperatures above or at least 5 °C below flash point for any flammable liquids.

Do not heat closed containers.

Avoid contact with oxidizing agents.

10.5 Incompatible materials

Not known.

10.6 Hazardous decomposition products

Contact with water or storage under recommended conditions for one year should not produce dangerous decomposition products.

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

This mixture has not been subjected to toxicological testing as an entity. According to available data on the constituents the health classification criteria are met.

12 ECOLOGICAL INFORMATION

This mixture has not been subjected to ecotoxicological testing as an entity. According to available data on the constituents the environmental classification criteria are met.

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste.

Contaminated packaging: for used, contaminated and residual materials additional evaluations may be required.

Do not dump into any sewers, on the ground, or into any body of water.

14 TRANSPORT INFORMATION

Packing Group:

In case of accidental spillage or fire during transport, refer to instructions given under points 5, 6, 7 and 8 above.

UNO

JN-No: 3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

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(LIMONENE)

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Class:

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Hazardous to the Environment

Land transport (ADR/RID)

UN-No: 3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(LIMONENE)

Class: 9
Packing group: III

Sea transport (IMDG-Code)

UN-No: 3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(LIMONENE)

Class: 9
Packing group: III

Marine pollutant

Air transport (ICAO-IATA)

UN-No: 3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(LIMONENE)

Class: 9 Packing group: III

15 REGULATORY INFORMATION

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

EU Regulations

No relevant information available at this time.

15.2 Chemical Safety Assessment

No data available at this time

16 OTHER INFORMATION

Revisions

01-Dec-2010: Version 6.1 - First version validated for publication

04-May-2012: Version 6.2 - Updates to sections 1, 2, 3, 8.3, 11, 12, 16.

20-Apr-2013: Version 6.3 - Updates to sections 1, 2, 3, 6, 8.1, 14, 16.

07-July-2014: Version 6.4 Updates to sections 2, 3, 14, 16.

30-May-2015: Version 6.5 Updates to sections 2, 3, 7, 8, 9,13,14,16

Key literature references

RIFM database

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OECD SIDS EU IUCLID

Supplier information

Full text of phrases used under section 2

S24/25 S37 S57 S61	Avoid contact with skin and eyes. Wear suitable gloves. Use appropriate container to avoid environmental contamination. Avoid release to the environment. Refer to special instructions/Safety data sheets.
S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P391	Collect spillage.
P331	Do NOT induce vomiting.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.

Full text of phrases used under section 3

13457123

Reference: GB

We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and the conditions of use of the product are not within the control of Firmenich, it is the user's obligation to determine conditions of safe use of the product.

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