

Firmenich

GHS Safety Data Sheet

According to Regulation ST/SG/AC.10/30/Rev.8 UN GHS

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

937856

DAMASCONE DELTA

© Firmenich product

CAS No: 71048-82-3

EC No: 275-156-8

EU REACH No: 01-2119535122-53

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

Fragrance ingredient for use in consumer products.

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

Firmenich Asia Private Ltd

No 10 Tuas West Road

Singapore 638377

SINGAPORE

Tel: +(65) 6347 2888

GRS.Fragrance.FIRSIN@firmenich.com

1.4 Emergency telephone number

+65 3158 1074 NCEC - Available 24/7

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation ST/SG/AC.10/30/Rev.8 [UN/GHS]

Acute Toxicity (oral) - Cat. 4	H302
Skin Irritation - Cat. 2	H315
Skin Sensitization - Cat. 1A	H317
Environmental Hazard (acute) - Cat. 1	H400
Environmental Hazard (chronic) - Cat. 1	H410

2.1.2 Additional information

Full text of listed statements : See section 16

2.2 Label elements

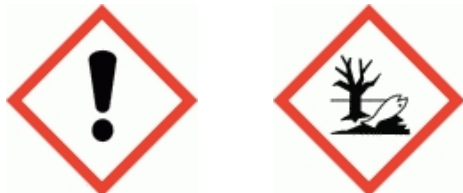
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Hazard pictograms:



Signal Word:

Warning

Hazard Statements:

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

P264	Wash thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
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.

2.3 Other hazards

No data available at this time.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical substance.

Contains :

>= 99.0 <= 100.0%
2-Buten-1-One, 1-(2,6,6-Trimethyl-3-Cyclohexen-1-Yl)-
N° CAS : 0057378-68-4
N° EINECS: 275-156-8
N° EU REACH: 01-2119535122-53

GHS Classification:

Skin Sensitization - Cat. 1A [H317]
Acute Toxicity (oral) - Cat. 4 [H302]
Skin Irritation - Cat. 2 [H315]
Environmental Hazard (acute) - Cat. 1 [H400]
Environmental Hazard (chronic) - Cat. 1 [H410]

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$\geq 0.5 < 1.0\%$

2-Buten-1-One, 1-(2,6,6-Trimethyl-2-Cyclohexen-1-Yl)-, (2e)-

N° CAS : 0024720-09-0

N° EINECS: 246-430-4

Skin Sensitization - Cat. 1B [H317]

Acute Toxicity (oral) - Cat. 4 [H302]

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

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

Acute Toxicity (dermal) - Cat. 5 [H313]

$\geq 0.1 < 0.5\%$

2h-1-Benzopyran-6-ol, 3,4-Dihydro-2,5,7,8-Tetramethyl-2-(4,8,12-Trimethyltridecyl)-

N° CAS : 0010191-41-0

N° EINECS: 200-412-2

Skin Sensitization - Cat. 1B [H317]

$\geq 0.1 < 0.5\%$

2-Buten-1-One, 1-(2,6,6-Trimethyl-1,3-Cyclohexadien-1-Yl)-

N° CAS : 0023696-85-7

N° EINECS: 245-844-2

Skin Sensitization - Cat. 1A [H317]

Skin Irritation - Cat. 2 [H315]

Environmental Hazard (chronic) - Cat. 2 [H411]

Environmental Hazard (acute) - Cat. 2 [H401]

Acute Toxicity (dermal) - Cat. 5 [H313]

4 FIRST-AID MEASURES

4.1 Description of first aid measures

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:

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

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 specific data available.

4.3 Indication of immediate medical attention and special treatment needed

No specific data available.

5 FIRE-FIGHTING MEASURES

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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.

For cleaning-up:

Spillages should be disposed of in accordance with Governmental Regulations.

7 HANDLING AND STORAGE

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.

7.1.1 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.

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7.1.2 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 general rules for compatibility storage.

7.3 Specific end use(s)

Not available at this time.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with occupational exposure limit values

Derived No Effect Level (DNEL)

DNEL Worker (dermal), systemic effects - long-term, = 2.1 mg/kg bw/day

Worker (dermal), systemic effects - acute, No hazard identified.

DNEL Worker (dermal), local effects - long-term, = 116 µg/cm²

Worker (dermal), local effects - acute, Low hazard (no threshold derived)

Worker (eyes), No hazard identified.

DNEL Worker (inhalation), systemic effects - long-term, = 1.5 mg/m³

Worker (inhalation), systemic effects - acute, No hazard identified.

Worker (inhalation), local effects - acute & long-term, No hazard identified.

DNEL Consumer (oral), systemic effects - long-term, = 0.25 mg/kg bw/day

Consumer (oral), systemic effects - acute, Low hazard (no threshold derived)

DNEL Consumer (inhalation), systemic effects - long-term, = 0.43 mg/m³

Consumer (inhalation), systemic effects - acute, No hazard identified.

Consumer (inhalation), local effects - acute & long-term, No hazard identified.

Consumer (eyes), No hazard identified.

DNEL Consumer (dermal), systemic effects - long-term, = 1.25 mg/kg bw/day

Consumer (dermal), systemic effects - acute, No hazard identified.

DNEL Consumer (dermal), local effects - long-term, = 69 µg/cm²

Consumer (dermal), local effects - acute, Low hazard (no threshold derived)

Predicted No Effect Concentration (PNEC)

PNEC Aqua (freshwater) = 7.4 µg/l

PNEC Aqua (marine water) = 0.74 µg/l

PNEC Sediment (freshwater) = 958 µg/kg sediment dw

PNEC Sediment (marine water) = 95.8 µg/kg sediment dw

PNEC STP = 2.41 mg/l

PNEC Soil = 187 µg/kg soil dw

PNEC Air No hazard identified.

PNEC Oral (secondary poisoning) No potential for bioaccumulation

8.2 Exposure controls

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Avoid exposing to high temperature during processing.
Maintain adequate local and general ventilation where product is handled.

8.2.1 Appropriate engineering controls

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

8.2.2 Environmental exposure controls

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

8.3 Personal protection

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

Hand protection: Adequate Protective Gloves should be worn.

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

Appearance :	LIQUID
Colour :	COLOURLESS TO YELLOW
Odour :	Characteristic strong odour according to the commercial description of the substance.
pH :	Not available
Melting point/range (°C) :	= 10 °C (Method A1)
Initial boiling point/range (°C) :	> 230 °C (Method A2)
Flash point (closed cup) :	> 100°C
Evaporation rate :	Not available
Flammability (solid/gas) :	The product is not flammable.
Explosive properties (St class) :	N/A
Vapour pressure (Pa) :	VP = 2.72 Pa at 23°C
Vapour density :	Not available
Relative density (d 20/20) :	= 0.93 at 20°C (Method A3)
Water solubility (20°C) :	= 77.2 mg/l at 20°C (Method A6)
Partition coef. (n-octanol/water) :	Log Kow = 4.2 (OECD 117)
Auto-ignition temperature (°C) :	= 280 °C at 1036hPa (Method A15)
Decomposition temperature :	Not available
Viscosity :	= 7.006 mPa.s at 20°C (OECD 114)
Explosive properties :	Not available
Oxidizing properties :	Not available

9.2 Other safety information

None

10 STABILITY AND REACTIVITY

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10.1 Reactivity

No reaction known with water.

10.2 Chemical stability

Good stability at standard temperature.

10.3 Possibility of hazardous reactions

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

(a) acute toxicity

Acute oral toxicity (Mouse, Gavage): LD50 = 1400 mg/kg

Acute dermal toxicity : LD50 $\geq$ 1400 mg/kg (Based on the acute oral LD50)

Acute Toxicity by inhalation : LC50 = 14000 mg/l (Based on the acute oral LD50)

(b) skin corrosion/irritation

In vitro Skin irritation (OECD 439): Irritant

(c) serious eye damage/irritation

Isolated Chicken Eye test method for identifying ocular corrosives and severe irritant (OECD 438):

Non irritant

(d) respiratory or skin sensitisation

Local Lymph Node Assay (LLNA) OECD 429: Sensitising to skin

(e) germ cell mutagenicity

Bacterial Reverse Mutation test (Ames) (Salmonella + E. Coli, OECD 471, With and without S9, 5 strains): Non mutagenic

In Vivo Mammalian Erythrocyte Micronucleus Test (Mouse, OECD 474): Non mutagenic

In vitro Mammalian Chromosome Aberration Test (Human, OECD 473): Chromosomal aberration observed

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(f) carcinogenicity

No data available

(g) reproductive toxicity

Reproduction Toxicity (Gavage, 28 day(s)): NOAEL (reproduction) = 340 mg/kg/day

Data on analogue - Prenatal development toxicity study (Rat, OECD 414, Gavage, 21 day(s)):

NOAEL $\geq$ 30 mg/kg/day

NOAEL (development) $\geq$ 30 mg/kg/day

(h) STOT-single exposure

No data available

(i) STOT-repeated exposure

Data on analogue - Repeated Dose 90-Day Oral Toxicity Study in Rodents (Rat, OECD 408,

Gavage):

NOAEL = 30 mg/kg/day

NOEL = 5 mg/kg/day

(j) aspiration hazard

No data available

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Alga, Growth Inhibition Test (*Pseudokirchneriella subcapitata*, OECD 201, Static):

72 h ErC50 = 4.54 mg/l (Based on average measured concentrations)

72 h NOEC = 0.883 mg/l (Based on average measured concentrations)

Fish, Acute Toxicity Test (*Oryzias latipes*, OECD 203, Semi-static): 96h LC50 = 0.97 mg/l (Based on average measured concentrations)

Activated Sludge, Respiration Inhibition Test (OECD 209, Static): 3h EC50 = 241 mg/l (Based on nominal concentrations)

Daphnia magna Reproduction Test (OECD 211, 21 day(s)):

NOEC = 0.35 mg/l (Based on average measured concentrations)

EC10 = 0.678 mg/l (Based on average measured concentrations)

Fish, Early-Life Stage Toxicity Test (*Pimephales promelas*, OECD 210, 32 day(s)):

NOEC = 0.118 mg/l (Based on average measured concentrations)

EC10 = 0.074 mg/l (Based on average measured concentrations)

12.2 Persistence and degradability

Ready Biodegradation - Modified MITI Test (OECD 301C, Sludge): Non readily biodegradable (15% in 28 day(s))

Hydrolysis as a Function of pH (OECD 111): Estimated Half-life at pH4 > 1 year

Hydrolysis as a Function of pH (OECD 111): Estimated Half-life at pH7 = 332 day(s)

Hydrolysis as a Function of pH (OECD 111): Estimated Half-life at pH9 = 41 day(s)

12.3 Bioaccumulative potential

Bioconcentration, Flow-through Fish Test (OECD 305, *Cyprinus carpio*): BCF = 58.3 L/kg,

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Log Kow = 4.2 (OECD 117)

12.4 Mobility in soil

Adsorption coefficient (OECD 121): Log Koc = 3.1

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Other adverse effects

No data available

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: The product should be handled according to the instructions given under sections 6, 7 and 8. Dispose of according to local or national regulations. The product should not be allowed to enter drains or the environment

Contaminated packaging: Empty packaging should be disposed according to local or national regulations by an approved waste handling

14 TRANSPORT INFORMATION

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

UNO

14.1 UN-No:	3082
14.2 Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DAMASCONE DELTA)
14.3 Class:	9
14.4 Packing Group:	III
14.5 Environmental hazards:	Yes

Land transport (ADR/RID)

14.1 UN-No:	3082
14.2 Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DAMASCONE DELTA)
14.3 Class:	9
14.4 Packing Group:	III
14.5 Environmental hazards:	Yes
14.6 Special precautions for user:	Refer to section 7

Sea transport (IMDG-Code)

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14.1 UN-No: 3082
14.2 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DAMASCONE DELTA)
14.3 Class: 9
14.4 Packing Group: III
14.5 Environmental hazards: Yes
Marine pollutant: Yes
14.6 Special precautions for user: Refer to section 7
14.7 Maritime transport in bulk according to IMO instruments: Not applicable

Air transport (ICAO-IATA)

14.1 UN-No: 3082
14.2 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DAMASCONE DELTA)
14.3 Class: 9
14.4 Packing Group: III
14.5 Environmental hazards: Not applicable
14.6 Special precautions for user: Refer to section 7
14.7 Maritime transport in bulk according to IMO instruments: Not applicable

15 REGULATORY INFORMATION

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

No relevant information available at this time.

15.2 Chemical Safety Assessment

No data available at this time.

16 OTHER INFORMATION

16.1 Revisions

March-2024 : Version 13.0 - Updates to sections 2, 3, 9, 14, 16

16.2 Key literature references

RIFM database
OECD SIDS
EU IUCLID

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Supplier information

16.3 Full text of phrases used under section 2

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.
P264	Wash thoroughly after handling.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.
P330	Rinse mouth.
P362	Take off contaminated clothing and wash before reuse.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P363	Wash contaminated clothing before reuse.

16.4 Full text of phrases used under section 3

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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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