According to Regulation HCS 2012

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

432250 ROSEMARY 5 MIP BTX © Firmenich product

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

John Carey

Firmenich Inc. P.O. Box 5880 Princeton - New Jersey 08543 - USA john.carey@firmenich.com Tel.:+1.609.452.1000

1.4 Emergency telephone number

FOR INFORMATION OR IN AN EMERGENCY CALL NCEC @ +1 215 207 0061.

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to Regulation HCS 2012

Environmental Hazard (chronic) - Cat. 3

Additional information

Full text of listed statements : See section 16

2.2 Label elements

Hazard pictograms:

Signal Word:

-

Hazard Statements: H412

Harmful to aquatic life with long lasting effects.

H412

According to Regulation HCS 2012

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

Precautionary Statements:P273Avoid release to the environment.P391Collect spillage.

2.3 Other hazards No data available at this time.

<u>3 COMPOSITION/INFORMATION ON INGREDIENTS</u>

The exact percentage (concentration) of composition has been withheld as a trade secret.

3.2 Mixture

Mixture of aromatic substances.

<u>Contains :</u> >= 0.5 < 1.0% Ethanone, 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-Tetramethyl-2-Naphthalenyl)-N° CAS : 0054464-57-2 N° EINECS: 259-174-3

>= 0.1 < 0.5% 1,6-Octadien-3-Ol, 3,7-Dimethyl-N° CAS : 0000078-70-6 N° EINECS: 201-134-4

>= 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

>= 0.1 < 0.5% Cyclopenta[G]-2-Benzopyran, 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-Hexamethyl-N° CAS : 0001222-05-5 N° EINECS: 214-946-9 <u>GHS Classification:</u> Skin Sensitization - Cat. 1B [H317] Skin Irritation - Cat. 2 [H315] Environmental Hazard (chronic) - Cat. 1 [H410]

Skin Sensitization - Cat. 1B [H317] Skin Irritation - Cat. 2 [H315] Eye Irritation - Cat.2A [H319] Flammable Liquid - Cat. 4 [H227]

Aspiration Hazard - Cat. 1 [H304] Skin Sensitization - Cat. 1B [H317] Acute Toxicity (oral) - Cat. 4 [H302] Skin Irritation - Cat. 2 [H315] Environmental Hazard (acute) - Cat. 1 [H400] Environmental Hazard (chronic) - Cat. 1 [H410] Flammable Liquid - Cat. 3 [H226]

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

According to Regulation HCS 2012

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

>= 0.1 < 0.5% 2-Oxabicyclo[2.2.2]Octane, 1,3,3-Trimethyl-N° CAS : 0000470-82-6 N° EINECS: 207-431-5 Skin Sensitization - Cat. 1B [H317] Flammable Liquid - Cat. 3 [H226]

>= 0.1 < 0.5% Limonene N° CAS : 0000138-86-3 N° EINECS: 205-341-0

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]

>= 0.1 < 0.5% Bicyclo[7.2.0]Undec-4-Ene, 4,11,11-Trimethyl-8-Methylene-, [1r-(1r*,4e,9s*)]-N° CAS : 0000087-44-5 N° EINECS: 201-746-1 Aspiration Hazard - Cat. 1 [H304] Skin Sensitization - Cat. 1B [H317] Environmental Hazard (chronic) - Cat. 4 [H413]

4 FIRST-AID MEASURES

<u>4.1 Description of first aid measures</u>
General information:
As in all cases of potential poisoning, Obtain medical advice immediately.

In case of eye contact:

In the event of contact with the eyes, irrigate with water for at least 15 minutes; obtain medical advice if irritation persists.

In case of inhalation:

In the event of exposure to vapors, immediately remove from the area to a fresh air environment. Individuals showing evidence of inhalation exposure should be taken to an uncontaminated area. 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:

In the event of accidental ingestion, rinse mouth with water. Give up to one tumbler (half pint) of milk or water. Obtain medical advise immediately.

Do not induce vomiting, obtain medical advise 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.

According to Regulation HCS 2012

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

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. Use standard procedures and preferred extinguishing media as stated below. Extinguishing media: Foam, carbon dioxide or dry chemical.

- 5.2 Special hazard arising from the substance or mixture None.
- 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:

Small spills can be wiped up with a cloth or paper. Standard absorbents can be used (saw dust, sand, vermiculite). Wear rubber gloves. Avoid contact with skin. If skin contact occurs, wash liberally with soap and water.

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.

According to Regulation HCS 2012

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

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

0000080-56-8 : TURPENTINE AND SELECTED MONOTERPENES US ACGIH Threshold Limit Values Data US. ACGIH Threshold Limit Values Occupational Exposure Limit data. Time Weighted Average (TWA): 20 ppm

0000138-86-3 : D-LIMONENE US WEEL Guides Data US. OARS. WEELs Workplace Environmental Exposure Level Guide Occupational Exposure Limit data. Time Weighted Average (TWA): 165.5 mg/m3 Occupational Exposure Limit data. Time Weighted Average (TWA): 30 ppm

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

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

Personal protection

Respiratory protection: Breathing of the vapors or dust particles may be hazardous. In the absence of appropriate engineering controls such as spot ventilation, ventilated enclosures, etc., workers should avail themselves of the appropriate NIOSH approved respiratory protection. Hand protection: Adequate Protective Gloves should be worn. Eye protection: Adequate safety glasses should be used.

According to Regulation HCS 2012

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

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 : Colour : Odour :	LIQUID COLOURLESS TO PALE YELLOW Characteristic strong odour according to the commercial description of the substance.
pH : Melting point/range (°C) : Initial boiling point/range (°C) : Flash point (closed cup) : Evaporation rate : Flammability (solid/gas) : Upper/lower flammability or explosive limits : Vapor pressure (At 20°C in mm Hg) : Calculated vapor pressure (At 20°C in mm Hg): Vapour density : Relative density (d 20/20) : Water solubility (20°C) : Partition coef. (n-octanol/water) : Auto-ignition temperature (°C): Decomposition temperature :	Not available Not available > 40°C > 212 Fahrenheit (> 100 Centigrade) Not available Not applicable N/A < 0.1 mm Not available 0.854 - 0.864 Not applicable Not applicable Not available Not available Not available Not available Not available Not available
Viscosity : Explosive properties : Oxidizing properties :	Not available Not available Not available Not available

9.2 Other safety information None

10 STABILITY AND REACTIVITY

10.1 Reactivity

No reaction known with water.

10.2 Chemical stability

Presents no significant reactivity hazard. Normally stable even at elevated temperatures and pressures. Avoid temperatures above or near to the flash point. Not pyrophoric nor reactive with water. Does not undergo explosive decomposition, is shock stable, and is not an oxygen donor. Does not form explosive mixtures with other organic materials. Will not undergo hazardous exothermic polymerization.

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

According to Regulation HCS 2012

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

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 Avoid strong oxidizing agents.

<u>10.6 Hazardous decomposition products</u> 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 not met.

(a) acute toxicity Calculated LD50 Oral: LD50 > 2000 mg/kg bw

(b) skin corrosion/irritation Not applicable

(c) serious eye damage/irritation Not applicable

(d) respiratory or skin sensitisation Not applicable

(e) germ cell mutagenicity Not applicable

(f) carcinogenicity Not applicable

(g) reproductive toxicity Not applicable

(h) STOT-single exposure Not applicable

(i) STOT-repeated exposure Not applicable

(j) aspiration hazard

According to Regulation HCS 2012

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

Not applicable

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.

12.1 Toxicity Environmental Hazard (chronic) - Cat. 3

12.2 Persistence and degradability No data available

12.3 Bioaccumulative potential No data available

12.4 Mobility in soil No data available

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

UN-No:	Not regulated
Proper Shipping Name:	N/A
Class:	
Packing Group:	

Land transport (ADR/RID)

According to Regulation HCS 2012

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

UN-No: Proper Shipping Name:	Not regulated N/A
Class:	
Packing group:	

Sea transport (IMDG-Code)

UN-No:	Not regulated
Proper Shipping Name:	N/A
Class:	
Packing group:	

Air transport (ICAO-IATA)

UN-No:	Not regulated
Proper Shipping Name:	N/A
Class:	
Packing group:	

15 REGULATORY INFORMATION

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

This mixture contains no toxic chemical or chemicals subject to reporting requirements of Section 313 of Title III of the Superfund Amendements and Reauthorization Act of 1986 and 29 CFR Part 1910.1200.

15.2 Chemical Safety Assessment

No data available at this time.

16 OTHER INFORMATION

Revisions Jun-2018 : Version 8.0 - Updates to sections 2, 8, 9, 11, 12

Key literature references RIFM database OECD SIDS EU IUCLID Supplier information

Full text of phrases used under section 2

H412	Harmful to aquatic life with long lasting effects.
P273	Avoid release to the environment.
P391	Collect spillage.

According to Regulation HCS 2012

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

Full text of phrases used under section 3

H226	Flammable liquid and vapour.
H227	Combustible liquid
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

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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