

# Firmenich

## GHS Safety Data Sheet - US

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

**959750**  
METHYLPENTYLKETONE  
© Firmenich product

CAS No: 110-43-0  
EC No: 203-767-1  
REACH No: 01-2119902391-49  
INDEX No: 606-024-00-3

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

Ingredient for use in products that may be ingested and/or fragrance ingredient for use in consumer product.  
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 Incorporated  
250 Plainsboro Road  
Princeton  
New Jersey 08536  
USA  
Tel: +1 609 452 10 00

GRS.Flavor.NAM@firmenich.com

#### 1.4 Emergency telephone number

FOR INFORMATION OR IN AN EMERGENCY CALL NCEC @ +1 866 928 0789 (TOLL FREE) OR +1 215 207 0061.

### 2 HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### According to Regulation HCS 2012

Flammable Liquid - Cat. 3	H226
Acute Toxicity (oral) - Cat. 4	H302
Acute Toxicity (inhalation) - Cat. 4	H332
Specific Target Organ Toxicity - Single Exposure - Cat. 3 Narcotic Effects	H336

#### Additional information

Full text of listed statements : See section 16

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### 2.2 Label elements

#### Hazard pictograms:



#### Signal Word:

Warning

#### Hazard Statements:

H226 Flammable liquid and vapour.  
H302+H332 Harmful if swallowed or if inhaled.  
H336 May cause drowsiness or dizziness.

#### Precautionary Statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P261 Avoid breathing mist/vapours.  
P303+P361+P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

### 2.3 Other hazards

CAUTION: THIS MATERIAL CONTAINS VOLATILE FLAVORING CHEMICALS IDENTIFIED IN THE FEMA "RESPIRATORY HEALTH AND SAFETY MANUFACTURING WORKPLACE" DOCUMENT.

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

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

### 3.1 Substance

Chemical substance.

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### Contains :

>= 99.0 <= 100.0%

Heptan-2-One

N° CAS : 0000110-43-0

N° EINECS: 203-767-1

N° EU REACH: 01-2119902391-49

### GHS Classification:

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

Acute Toxicity (inhalation) - Cat. 4 [H332]

Specific Target Organ Toxicity - Single Exposure -  
Cat. 3 Narcotic Effects [H336]

Flammable Liquid - Cat. 3 [H226]

## **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:

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.

#### 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 specific data available.

### 4.3 Indication of immediate medical attention and special treatment needed

No specific data available.

## **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.

Cool fire exposed containers with water spray.

Extinguishing media: Foam, carbon dioxide or dry chemical.

### 5.2 Special hazard arising from the substance or mixture

Closed containers may build up pressure if exposed to heat (fire).

Closed containers may build up pressure if exposed to heat (fire). Vapors form explosive mixtures with air and may travel to a source of ignition and flash back.

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### 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:

Gloves impervious to the chemical substance 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:

Eliminate all sources of ignition. Leaking containers should be removed to a well ventilated area if possible to do safely. If not, dike around container to limit spread of spill, leak. If spill/leak is small, clean up with standard absorbents (sand, vermiculite, etc.). Wear rubber gloves. Avoid contact with skin. If skin contact occurs, wash liberally with soap and water. See Section VI above. If large leak/spill, call HAZMAT Team.

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 gloves impervious to the chemical substance 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

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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

0000110-43-0 : METHYL (N-AMYL) KETONE  
US NIOSH Pocket Guide to Chemical Hazards Data  
US. NIOSH: Pocket Guide to Chemical Hazards, as amended  
Occupational Exposure Limit data. Recommended exposure limit (REL): 100 ppm  
Occupational Exposure Limit data. Recommended exposure limit (REL): 465 mg/m<sup>3</sup>

0000110-43-0 : METHYL N-AMYL KETONE  
US OSHA Table Z-1 Data  
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)  
Occupational Exposure Limit data. Permissible exposure limit: 100 ppm  
Occupational Exposure Limit data. Permissible exposure limit: 465 mg/m<sup>3</sup>

0000110-43-0 : METHYL N-AMYL KETONE  
US OSHA Table Z-1-A Data  
US. OSHA Table Z-1-A (29 CFR 1910.1000)  
Occupational Exposure Limit data. Time Weighted Average (TWA): 100 ppm  
Occupational Exposure Limit data. Time Weighted Average (TWA): 465 mg/m<sup>3</sup>

0000110-43-0 : Methyl n-amyl ketone  
US ACGIH Threshold Limit Values Data  
US. ACGIH Threshold Limit Values, as amended  
Occupational Exposure Limit data. Time Weighted Average (TWA): 50 ppm

### **Derived No Effect Level (DNEL)**

No data available

### **Predicted No Effect Concentration (PNEC)**

No data available

### 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

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: Gloves impervious to the chemical substance 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
Odour :	Characteristic strong odour according to the commercial description of the substance.
pH :	Not available
Melting point/range (°C) :	< -20 °C (Method A1)
Initial boiling point/range (°C) :	= 148 °C at 97.7 - 98.23kPa (Method A2)
Flash point (closed cup) :	= 81 Fahrenheit (= 27 Centigrade)
Evaporation rate :	Not available
Flammability (solid/gas) :	Not applicable
Explosive properties (St class) :	N/A
Vapor pressure (At 20°C in mm Hg) :	3.6
Vapour density :	Not available
Relative density (d 20/20) :	= 0.814 at 20°C (Method A3)
Water solubility (20°C) :	= 4210 mg/l at 20°C (Method A6)
Partition coef. (n-octanol/water) :	Log Kow = 2.26 (Method A8)
Auto-ignition temperature (°C) :	= 358 °C at 99.63 - 100.63kPa (Method A15)
Decomposition temperature :	Not available
Viscosity :	= 0.797 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**

### 10.1 Reactivity

No reaction known with water.

### 10.2 Chemical stability

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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

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.

### 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 (Rat, Gavage): LD50 = 1600 mg/kg

Acute dermal toxicity (Rat, OECD 402, Semi-occlusive): LD50 > 2000 mg/kg

Acute Toxicity by inhalation (Rat, OECD 403, Vapour): LC50 > 16.7 mg/l

#### (b) skin corrosion/irritation

Primary Skin irritation (Rabbit, OECD 404, Semi-occlusive): Irritant

Primary Skin irritation (OECD 404 modified) (Rabbit, Open to air): Moderate irritant

#### (c) serious eye damage/irritation

Acute Eye irritation (Rabbit, OECD 405, No washout): Mild irritant

#### (d) respiratory or skin sensitisation

Local Lymph Node Assay (LLNA) OECD 429: Non-sensitising to skin

#### (e) germ cell mutagenicity

Bacterial Reverse Mutation test (Ames) (Salmonella, OECD 471, With and without S9, 5 strains):

Non mutagenic

In vitro mammalian cell gene mutation test (Mouse, L5178Y cells, OECD 476, Mouse lymphoma assay): Non mutagenic

Unscheduled DNA Synthesis UDS with Mamm. Liver Cells in vivo (Rat): Negative for UDS

Unscheduled DNA Synthesis UDS with Mamm. Liver Cells in vivo (Rat): Negative for UDS

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In vitro Mammalian Chromosome Aberration Test (Chinese hamster, OECD 473): No chromosomal aberration

(f) carcinogenicity  
No data available

(g) reproductive toxicity  
Reproduction/Developmental Toxicity Screening Test (Rat, OECD 421, Vapour, 50 day(s)):  
NOEL (reproduction) = 4742 mg/m<sup>3</sup> air  
NOEL (development) = 4742 mg/m<sup>3</sup> air  
Prenatal development toxicity study (Rat, OECD 414, Vapour, 14 day(s)):  
NOAEL (maternal) = 5690 mg/m<sup>3</sup> air  
NOAEL (development) = 5690 mg/m<sup>3</sup> air

(h) STOT-single exposure  
No data available

(i) STOT-repeated exposure  
Repeated Dose Oral Toxicity Study (Rat, Gavage, 13 weeks): NOEL = 20 mg/kg/day  
Subacute Inhalation Toxicity Study (Rat, Vapour, 10 months): NOEC = 4779 mg/m<sup>3</sup> air

(j) aspiration hazard  
No data available

## **12 ECOLOGICAL INFORMATION**

### 12.1 Toxicity

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

72 h NOEC = 42.7 mg/l

72 h ErC50 = 98.2 mg/l

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

72 h ErC50 = 98.2 mg/l (Based on average measured concentrations)

72 h ErC10 = 42.7 mg/l (Based on average measured concentrations)

Daphnia sp. Acute Immobilisation Test and Reproduction Test (OECD 202, Semi-static): 48h EC50 > 90.1 mg/l (Based on average measured concentrations)

Fish, Acute Toxicity Test (Pimephales promelas, Flow-through): 96h LC50 = 131 mg/l (Based on average measured concentrations)

Acute toxicity to bacteria (Pseudomonas putida, ISO 10712, Static):

16 h EC50 = 690 mg/l (Based on nominal concentrations)

16 h NOEC = 12.5 mg/l (Based on nominal concentrations)

### 12.2 Persistence and degradability

Ready Biodegradation - CO<sub>2</sub> Evolution Test (OECD 301B): Readily biodegradable (69% in 28 day(s))

Hydrolysis as a Function of pH (Method C7): Estimated Half-life at pH7 > 1 year

### 12.3 Bioaccumulative potential



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Log Kow = 2.26 (Method A8)

12.4 Mobility in soil  
Adsorption coefficient (Method C19): Log Koc = 1.45

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: 1110  
Proper Shipping Name: n-Amyl methyl ketone  
Class: 3  
Packing Group: III

#### **Land transport (ADR/RID)**

UN-No: 1110  
Proper Shipping Name: N-AMYL METHYL KETONE  
Class: 3  
Packing group: III

#### **Sea transport (IMDG-Code)**

UN-No: 1110  
Proper Shipping Name: AMYL METHYL KETONE  
Class: 3  
Packing group: III

#### **Air transport (ICAO-IATA)**

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UN-No: 1110  
Proper Shipping Name: n-Amyl methyl ketone  
Class: 3  
Packing group: III

### **15 REGULATORY INFORMATION**

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

This chemical is NOT subject to reporting requirements of Section 313 of Title III of the Superfund Amendments 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

March-2021 : Version 10.1 - Updates to sections 1, 2, 3 ,8 ,9, 11, 12, 14, 15, 16

#### Key literature references

RIFM database  
OECD SIDS  
EU IUCLID  
Supplier information

#### Full text of phrases used under section 2

H226	Flammable liquid and vapour.
H302+H332	Harmful if swallowed or if inhaled.
H336	May cause drowsiness or dizziness.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P240	Ground/bond container and receiving equipment.
P270	Do not eat, drink or smoke when using this product.
P241	Use rated explosion-proof electrical equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P370+P378	In case of fire: Use appropriate fire extinguishers for fire control.

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## GHS Safety Data Sheet - US

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P330 Rinse mouth.  
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

### Full text of phrases used under section 3

H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H332 Harmful if inhaled.  
H336 May cause drowsiness or dizziness.

**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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