26.06.2024	Kit components
Product code	Description
037454	Melting Point Standard Set: Phenacetin, Caffeine, Vanillin
Components:	
BMP1321	MELTING POINT STANDARD PHENACETIN 134 °C to 136 °C
BMP2361	MELTING POINT STANDARD CAFFEINE 235 °C to 238 °C
BMP0821	MELTING POINT STANDARD VANILLIN 81 °C to

83 °C

Revision: 26.06.2024



Safety data sheet according to 1907/2006/EC, Article 31

Printing 26.06.2024

version number 9 (replaces version 8)

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

*1.1 Product identifier

*Trade name: MELTING POINT STANDARD PHENACETIN 134 °C to 136 °C

*Article number: BMP1321

*CAS Number: 62-44-2 *EC number:

200-533-0

*Registration number

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

*UFI: X9P1-30R9-600X-PH9X

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

*Product category For experiments, research, or testing purposes only. Prohibited of use for other purposes.

*Application of the substance / the mixture Laboratory Chemicals

*1.3 Details of the supplier of the safety data sheet

*Manufacturer/Supplier: See Below

*Manufacturer:

Reagecon Diagnostics Ltd.

Shannon Free Zone,

Shannon, Co. Clare, Ireland.

Tel +353 61 472622

Fax +353 61 472642

*Supplier:

BÜCHI Labortechnik AG

Meierseggstrasse 40

CH - 9230 Flawil

Telephone: +41 71 394 63 63 FAX: +41 71 394 65 65 Email: buchi@buchi.com Internet: www.buchi.com

*Further information obtainable by contacting: sds@reagecon.ie

*1.4 Emergency telephone number:

National Poisons Information Centre: +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)

Healthcare Professionals: +353 (1) 809 2566 (24 hour service)

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC

For Ireland call +(353)-19014670

For Outside Ireland call +1 703-741-5970 / 1-800-424-9300 CCN849800

SECTION 2: Hazards identification

*2.1 Classification of the substance or mixture

*Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

Carc. 1A H350 May cause cancer.



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Trade name: MELTING POINT STANDARD PHENACETIN 134 °C to 136 °C

(Contd. of page 1)

Acute Tox. 4 H302 Harmful if swallowed.

*2.2 Label elements

*Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

*Hazard pictograms





GHS07

GHS08

*Signal word Danger

*Hazard-determining components of labelling:

phenacetin

*Hazard statements

H302 Harmful if swallowed.

H350 May cause cancer.

*Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405

Store locked up.

P501

Dispose of contents/container in accordance with local/regional/national/international

regulations.

*2.3 Other hazards

*Results of PBT and vPvB assessment

*PBT: Not applicable. *vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

*3.1 Substances

*CAS No. Description

CAS: 62-44-2 phenacetin

*Identification number(s)

*EC number: 200-533-0

SECTION 4: First aid measures

*4.1 Description of first aid measures

*General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

*After inhalation:

Provide fresh air, warmth and rest. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Obtain medical attention if any discomfort continues.

*After skin contact: Generally the product does not irritate the skin.

*After eye contact:

Promptly wash eyes with plenty of water for up to 15 minutes. Open eyes wide apart and rinse well to remove any contact lenses. Do not remove contact lenses by hand. Continue to rinse. Get medical attention if symptoms persist.

*After swallowing:

Do not induce vomiting; call for medical help immediately. Rinse mouth thoroughly with water and give large amounts of water to drink. Never give anything by mouth to an unconscious person.

(Contd. on page 3)



Printing 26.06.2024

version number 9 (replaces version 8)

Trade name: MELTING POINT STANDARD PHENACETIN 134 °C to 136 °C

(Contd. of page 2)

Revision: 26.06.2024

*4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

*5.1 Extinguishing media

*Suitable extinguishing agents:

Indications shall be given whether any extinguishing media are inappropriate for a particular situation involving the substance or mixture

Use fire extinguishing methods suitable to surrounding conditions.

*5.2 Special hazards arising from the substance or mixture No further relevant information available.

*5.3 Advice for firefighters

*Protective equipment:

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers

SECTION 6: Accidental release measures

*6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment as described in Section 8 below. Keep unprotected persons away.

*6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

*6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

*6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- *7.1 Precautions for safe handling Open and handle receptacle with care.
- *Information about fire and explosion protection: Keep respiratory protective device available.
- *7.2 Conditions for safe storage, including any incompatibilities
- *Storage:
- *Requirements to be met by storerooms and receptacles: No special requirements.
- *Information about storage in one common storage facility: Not required.
- *Further information about storage conditions: None.
- *7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- *8.1 Control parameters
- *Ingredients with limit values that require monitoring at the workplace: Not required.
- *Additional information: The lists valid during the making were used as basis.
- *8.2 Exposure controls
- *Appropriate engineering controls No further data; see section 7.
- *Individual protection measures, such as personal protective equipment
- *General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

(Contd. on page 4)



Printing 26.06.2024

version number 9 (replaces version 8)

Trade name: MELTING POINT STANDARD PHENACETIN 134 °C to 136 °C

(Contd. of page 3)

Revision: 26.06.2024

Store protective clothing separately.

*Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Where risk assessment shows air-purifying respirators are appropriate use a respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges as back up to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

*Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Always ensure that gloves are inspected before use.

Selection of protective gloves must include consideration of the penetration times along with rates of diffusion and degradation. The selected glove should comply with the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it.

*Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

*Penetration time of glove material

In the absence of data above, the exact break through time has to be sourced from the manufacturer of the protective gloves and has to be observed.

*Eye/face protection



Tightly sealed goggles: Use equipment for eye protection tested and approved under appropriate government standards

such as NIOSH (US) or EN 166(EU)

SECTION 9: Physical and chemical properties

*9.1 Information on basic pl	hvsical and	chemical	properties
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*General Information

*Physical state Liquid *Colour: White

*Odour: Characteristic
*Odour threshold: Not determined.
*Melting point/freezing point: 134-136 °C

*Melting point/freezing point:
*Boiling point or initial boiling point and boiling

range Undetermined.

*Flammability Product is not flammable.

*Lower and upper explosion limit

*Lower: Not determined.
*Upper: Not determined.
*Flash point: Not applicable.
*Decomposition temperature: Not determined.
*pH Not applicable.

*Viscosity:

*Kinematic viscosity Not applicable.
*Dynamic: Not applicable.

*Solubility

*water: Insoluble.

(Contd. on page 5)



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Trade name: MELTING POINT STANDARD PHENACETIN 134 °C to 136 °C

(Contd. of page 4)

*Partition coefficient n-octanol/water (log value)	Not determined.
*Vapour pressure:	Not applicable.
*Density and/or relative density	

*Density: Not determined. *Relative density Not determined. *Vapour density Not applicable.

*Particle characteristics

See section 3.

*9.2 Other information

*Appearance:

Crystalline *Form:

*Important information on protection of health and environment, and on safety.

*Ignition temperature: Not determined.

*Explosive properties: Product does not present an explosion hazard.

*Molecular weight 179.22 g/mol

*Change in condition

*Evaporation rate Not applicable.

*Information with regard to physical hazard classes *Explosives Void *Flammable gases Void *Aerosols Void *Oxidising gases Void *Gases under pressure Void *Flammable liquids Void *Flammable solids Void *Self-reactive substances and mixtures Void

*Pyrophoric liquids Void *Pyrophoric solids *Self-heating substances and mixtures Void *Substances and mixtures, which emit flammable Void gases in contact with water Void *Oxidising liquids Void *Oxidising solids *Organic peroxides Void

*Corrosive to metals Void *Desensitised explosives Void

SECTION 10: Stability and reactivity

- *10.1 Reactivity No further relevant information available.
- *10.2 Chemical stability
- *Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Void

- *10.3 Possibility of hazardous reactions No dangerous reactions known.
- *10.4 Conditions to avoid No further relevant information available.
- *10.5 Incompatible materials: No further relevant information available.
- *10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

*11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

*Acute toxicity Harmful if swallowed.

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version number 9 (replaces version 8)

Trade name: MELTING POINT STANDARD PHENACETIN 134 °C to 136 °C

(Contd. of page 5)

Revision: 26.06.2024

*LD/LC50 values relevant for classification:

CAS: 62-44-2 phenacetin

Oral LD50 1,650 mg/kg (rat)

- *Skin corrosion/irritation Based on available data, the classification criteria are not met.
- *Serious eye damage/irritation Based on available data, the classification criteria are not met.
- *Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- *Germ cell mutagenicity Based on available data, the classification criteria are not met.
- *Carcinogenicity May cause cancer.
- *Reproductive toxicity Based on available data, the classification criteria are not met.
- *STOT-single exposure Based on available data, the classification criteria are not met.
- *STOT-repeated exposure Based on available data, the classification criteria are not met.
- *Aspiration hazard Based on available data, the classification criteria are not met.
- *11.2 Information on other hazards

*Endocrine disrupting properties

Substance is not listed.

SECTION 12: Ecological information

- *12.1 Toxicity
- *Aquatic toxicity: No further relevant information available.
- *12.2 Persistence and degradability No further relevant information available.
- *12.3 Bioaccumulative potential No further relevant information available.
- *12.4 Mobility in soil No further relevant information available.
- *12.5 Results of PBT and vPvB assessment
- *PBT: Not applicable.
- *vPvB: Not applicable.
- *12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- *12.7 Other adverse effects
- *Additional ecological information:
- *General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- *13.1 Waste treatment methods
- *Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

*European waste catalogue

HP6 Acute Toxicity

HP7 Carcinogenic

- *Uncleaned packaging:
- *Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

*14.1 UN number or ID number

*ADR, IMDG, IATA

Void

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version number 9 (replaces version 8)

Revision: 26.06.2024

Trade name: MELTING POINT STANDARD PHENACETIN 134 °C to 136 °C

		(Contd. of page
*14.2 UN proper shipping name		
*ADR	Void	
	Void	
*IMDG, IATA	Void	
*14.3 Transport hazard class(es)		
*ADR, IMDG, IATA		
*Class	Void	
*14.4 Packing group		
*ADR, IMDG, IATA	Void	
*14.5 Environmental hazards:	Not applicable.	
*14.6 Special precautions for user	Not applicable.	
*14.7 Maritime transport in bulk according	g to IMO	
instruments	Not applicable.	
*UN "Model Regulation":	Void	

SECTION 15: Regulatory information

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

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II

Substance is not listed.

*REGULATION (EU) 2019/1148

*Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

Substance is not listed.

*Annex II - REPORTABLE EXPLOSIVES PRECURSORS

Substance is not listed.

*Regulation (EC) No 273/2004 on drug precursors

Substance is not listed.

*Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

Substance is not listed.

*National regulations:

*Information about limitation of use:

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

*Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

*Department issuing SDS: Health and Safety

(Contd. on page 8)

^{*}Directive 2012/18/EU

^{*}Named dangerous substances - ANNEX I Substance is not listed.

^{*15.2} Chemical safety assessment: A Chemical Safety Assessment has not been carried out.



Printing 26.06.2024

version number 9 (replaces version 8)

Revision: 26.06.2024

Trade name: MELTING POINT STANDARD PHENACETIN 134 °C to 136 °C

(Contd. of page 7)

*Contact: sds@reagecon.ie

*Date of previous version: 16.04.2024 *Version number of previous version: 8

*Abbreviations and acronyms:

REACH (Registration, Evaluation, Authorisation and restriction of Chemicals)

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the

International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Acute Tox. 4: Acute toxicity – Category 4

Carc. 1A: Carcinogenicity - Category 1A

*NO

ΙE

Revision: 26.06.2024



Safety data sheet according to 1907/2006/EC, Article 31

Printing 26.06.2024

version number 16 (replaces version 15)

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

*1.1 Product identifier

*Trade name: MELTING POINT STANDARD CAFFEINE 235 °C to 238 °C

*Article number: BMP2361

*CAS Number:

58-08-2

*EC number:

200-362-1

*Index number:

613-086-00-5

*Registration number

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

*UFI: GDP1-M0EP-H00E-AUW0

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

- *Product category For experiments, research, or testing purposes only. Prohibited of use for other purposes.
- *Application of the substance / the mixture Laboratory Chemicals

*1.3 Details of the supplier of the safety data sheet

*Manufacturer/Supplier: See Below

*Manufacturer:

Reagecon Diagnostics Ltd.

Shannon Free Zone,

Shannon.

Co. Clare,

Ireland.

Tel +353 61 472622

Fax +353 61 472642

*Supplier:

BÜCHI Labortechnik AG

Meierseggstrasse 40

CH - 9230 Flawil

Telephone: +41 71 394 63 63 FAX: +41 71 394 65 65

Email: buchi@buchi.com Internet: www.buchi.com

*Further information obtainable by contacting: sds@reagecon.ie

*1.4 Emergency telephone number:

National Poisons Information Centre: +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)

Healthcare Professionals: +353 (1) 809 2566 (24 hour service)

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC

For Ireland call +(353)-19014670

For Outside Ireland call +1 703-741-5970 / 1-800-424-9300 CCN849800

SECTION 2: Hazards identification

*2.1 Classification of the substance or mixture

*Classification according to Regulation (EC) No 1272/2008



Acute Tox. 4 H302 Harmful if swallowed.

(Contd. on page 2)



Printing 26.06.2024

version number 16 (replaces version 15)

Revision: 26.06.2024

Trade name: MELTING POINT STANDARD CAFFEINE 235 °C to 238 °C

(Contd. of page 1)

*2.2 Label elements

*Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

*Hazard pictograms



*Signal word Warning

*Hazard-determining components of labelling:

Caffeine

*Hazard statements

H302 Harmful if swallowed.

*Precautionary statements

P264

Wash thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330

Rinse mouth.

P501

Dispose of contents/container in accordance with local/regional/national/international

regulations.

*2.3 Other hazards

*Results of PBT and vPvB assessment

*PBT: Not applicable. *vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

*3.1 Substances

*CAS No. Description

CAS: 58-08-2 Caffeine

*Identification number(s)

*EC number: 200-362-1

*Index number: 613-086-00-5

SECTION 4: First aid measures

*4.1 Description of first aid measures

*General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

*After inhalation:

Provide fresh air, warmth and rest. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Obtain medical attention if any discomfort continues.

*After skin contact: Generally the product does not irritate the skin.

*After eye contact:

Promptly wash eyes with plenty of water for up to 15 minutes. Open eyes wide apart and rinse well to remove any contact lenses. Do not remove contact lenses by hand. Continue to rinse. Get medical attention if symptoms persist.

*After swallowing:

Call for a doctor immediately.

Do not induce vomiting; call for medical help immediately. Rinse mouth thoroughly with water and give large amounts of water to drink. Never give anything by mouth to an unconscious person.

*4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

(Contd. on page 3)



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version number 16 (replaces version 15)

Trade name: MELTING POINT STANDARD CAFFEINE 235 °C to 238 °C

(Contd. of page 2)

Revision: 26.06.2024

*4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

*5.1 Extinguishing media

*Suitable extinguishing agents:

Indications shall be given whether any extinguishing media are inappropriate for a particular situation involving the substance or mixture

Use fire extinguishing methods suitable to surrounding conditions.

- *5.2 Special hazards arising from the substance or mixture No further relevant information available.
- *5.3 Advice for firefighters

*Protective equipment:

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers

SECTION 6: Accidental release measures

*6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment as described in Section 8 below. Keep unprotected persons away.

*6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

*6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

*6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

*7.1 Precautions for safe handling

Keep receptacles tightly sealed.

No special precautions are necessary if used correctly.

*Information about fire - and explosion protection: No special measures required.

- *7.2 Conditions for safe storage, including any incompatibilities
- *Storage:
- *Requirements to be met by storerooms and receptacles: No special requirements.
- *Information about storage in one common storage facility: Not required.
- *Further information about storage conditions: None.
- *7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- *8.1 Control parameters
- *Ingredients with limit values that require monitoring at the workplace: Not required.
- *Additional information: The lists valid during the making were used as basis.
- *8.2 Exposure controls
- *Appropriate engineering controls No further data; see section 7.
- *Individual protection measures, such as personal protective equipment
- *General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

(Contd. on page 4)



Printing 26.06.2024

version number 16 (replaces version 15)

Trade name: MELTING POINT STANDARD CAFFEINE 235 °C to 238 °C

(Contd. of page 3)

Revision: 26.06.2024

*Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges as back up to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

*Hand protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Always ensure that gloves are inspected before use.

Selection of protective gloves must include consideration of the penetration times along with rates of diffusion and degradation. The selected glove should comply with the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it.

*Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

*Penetration time of glove material

In the absence of data above, the exact break through time has to be sourced from the manufacturer of the protective gloves and has to be observed.

*Eye/face protection Not required.

SECTION 9: Physical and chemical properties

*9.1 Information on	basic physical and	chemical	properties
---------------------	--------------------	----------	------------

*General Information

*Physical state Liquid *Colour: White

Characteristic*Odour: *Odour threshold: Not determined. 234-236.5 °C *Melting point/freezing point:

*Boiling point or initial boiling point and boiling

range Undetermined.

*Flammability Product is not flammable.

*Lower and upper explosion limit

Not determined. *Lower: *Upper: Not determined. >93 °C *Flash point: Not determined. *Decomposition temperature:

*pH 5.5-6.5

*Viscosity:

Not applicable. *Kinematic viscosity *Dynamic: Not applicable.

*Solubility

*water at 16 °C: 18.7 g/l

*Partition coefficient n-octanol/water (log value) Not determined. *Vapour pressure at 89 °C: 20 hPa

*Density and/or relative density

1.23 g/cm³ *Density at 20 °C: Not determined. *Relative density *Bulk density: $220 \, kg/m^3$ *Vapour density Not applicable.

*Particle characteristics

See section 3.

(Contd. on page 5)



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version number 16 (replaces version 15)

Revision: 26.06.2024

Trade name: MELTING POINT STANDARD CAFFEINE 235 °C to 238 °C

(Contd. of page 4)

	nation

*Appearance:

*Form:

Powder

*Important information on protection of health and

environment, and on safety.

*Ignition temperature:

Not determined.

*Explosive properties:

Product does not present an explosion hazard.

*Molecular weight

194.19 g/mol

*Change in condition

*Evaporation rate

Not applicable.

*Information with regard to physical hazard classes

*Explosives Void *Flammable gases Void Void *Aerosols Void *Oxidising gases Void *Gases under pressure *Flammable liquids Void Void *Flammable solids Void *Self-reactive substances and mixtures Void *Pyrophoric liquids *Pyrophoric solids Void *Self-heating substances and mixtures Void *Substances and mixtures, which emit flammable Void gases in contact with water *Oxidising liquids Void *Oxidising solids Void *Organic peroxides Void *Corrosive to metals Void *Desensitised explosives Void

SECTION 10: Stability and reactivity

- *10.1 Reactivity No further relevant information available.
- *10.2 Chemical stability
- *Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- *10.3 Possibility of hazardous reactions No dangerous reactions known.
- *10.4 Conditions to avoid No further relevant information available.
- *10.5 Incompatible materials: No further relevant information available.
- *10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- *11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- *Acute toxicity Harmful if swallowed.
- *LD/LC50 values relevant for classification:

CAS: 58-08-2 Caffeine

Oral LD50 192 mg/kg (rat)

- *Skin corrosion/irritation Based on available data, the classification criteria are not met.
- *Serious eye damage/irritation Based on available data, the classification criteria are not met.
- *Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- *Germ cell mutagenicity Based on available data, the classification criteria are not met.
- *Carcinogenicity Based on available data, the classification criteria are not met.
- *Reproductive toxicity Based on available data, the classification criteria are not met.

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- *STOT-single exposure Based on available data, the classification criteria are not met.
- *STOT-repeated exposure Based on available data, the classification criteria are not met.
- *Aspiration hazard Based on available data, the classification criteria are not met.
- *11.2 Information on other hazards
- *Endocrine disrupting properties

Substance is not listed.

SECTION 12: Ecological information

- *12.1 Toxicity
- *Aquatic toxicity: No further relevant information available.
- *12.2 Persistence and degradability No further relevant information available.
- *12.3 Bioaccumulative potential No further relevant information available.
- *12.4 Mobility in soil No further relevant information available.
- *12.5 Results of PBT and vPvB assessment
- *PBT: Not applicable.
- *vPvB: Not applicable.
- *12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- *12.7 Other adverse effects
- *Additional ecological information:
- *General notes:

Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

- *13.1 Waste treatment methods
- *Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

*European waste catalogue

HP6 Acute Toxicity

- *Uncleaned packaging:
- *Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information *14.1 UN number or ID number *ADR, IMDG, IATA Void *14.2 UN proper shipping name *ADR Void Void *IMDG, IATA Void *14.3 Transport hazard class(es) *ADR, IMDG, IATA *Class Void *14.4 Packing group Void *ADR, IMDG, IATA

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Trade name: MELTING POINT STANDARD CAFFEINE 235 °C to 238 °C

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*14.5 Environmental hazards: *Marine pollutant:

No

*14.6 Special precautions for user

Not applicable.

*14.7 Maritime transport in bulk according to IMO

instruments

Not applicable.

*UN "Model Regulation":

Void

SECTION 15: Regulatory information

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

- *Directive 2012/18/EU
- *Named dangerous substances ANNEX I Substance is not listed.

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

Substance is not listed.

*REGULATION (EU) 2019/1148

*Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

Substance is not listed.

*Annex II - REPORTABLE EXPLOSIVES PRECURSORS

Substance is not listed.

*Regulation (EC) No 273/2004 on drug precursors

Substance is not listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

Substance is not listed.

- *National regulations:
- *Waterhazard class: Water hazard class 3 (Assessment by list):extremely hazardous for water.
- *15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

*Department issuing SDS: Health and Safety

*Contact: sds@reagecon.ie

*Date of previous version: 16.04.2024 *Version number of previous version: 15

*Abbreviations and acronyms:

REACH (Registration, Evaluation, Authorisation and restriction of Chemicals)

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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Trade name: MELTING POINT STANDARD CAFFEINE 235 °C to 238 °C

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Acute Tox. 4: Acute toxicity – Category 4
*NO

- IE

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Safety data sheet according to 1907/2006/EC, Article 31

Printing 26.06.2024

version number 9 (replaces version 8)

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

*1.1 Product identifier

*Trade name: MELTING POINT STANDARD VANILLIN 81 °C to 83 °C

*Article number: BMP0821

*CAS Number: 121-33-5
*EC number:

*EC number 204-465-2

*Registration number

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

*UFI: AGP1-4042-T00X-06G2

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

*Product category For experiments, research, or testing purposes only. Prohibited of use for other purposes.

*Application of the substance / the mixture Laboratory Chemicals

*1.3 Details of the supplier of the safety data sheet

*Manufacturer/Supplier: See Below

*Manufacturer:

Reagecon Diagnostics Ltd.

Shannon Free Zone,

Shannon, Co. Clare,

Ireland.

Tel +353 61 472622

Fax +353 61 472642

*Supplier:

BÜCHI Labortechnik AG

Meierseggstrasse 40

CH - 9230 Flawil

Telephone: +41 71 394 63 63 FAX: +41 71 394 65 65 Email: buchi@buchi.com Internet: www.buchi.com

*Further information obtainable by contacting: sds@reagecon.ie

*1.4 Emergency telephone number:

National Poisons Information Centre: +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)

Healthcare Professionals: +353 (1) 809 2566 (24 hour service)

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC

For Ireland call +(353)-19014670

For Outside Ireland call +1 703-741-5970 / 1-800-424-9300 CCN849800

SECTION 2: Hazards identification

*2.1 Classification of the substance or mixture

*Classification according to Regulation (EC) No 1272/2008



Acute Tox. 4 H302 Harmful if swallowed.

*2.2 Label elements

*Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

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Trade name: MELTING POINT STANDARD VANILLIN 81 °C to 83 °C

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*Hazard pictograms



*Signal word Warning

*Hazard-determining components of labelling:

Vanillin

*Hazard statements

H302 Harmful if swallowed.

*Precautionary statements

P264

Wash thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330

Rinse mouth.

P501

Dispose of contents/container in accordance with local/regional/national/international

regulations.

*2.3 Other hazards

*Results of PBT and vPvB assessment

*PBT: Not applicable. *vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

*3.1 Substances

*CAS No. Description

CAS: 121-33-5 Vanillin
*Identification number(s)
*EC number: 204-465-2

SECTION 4: First aid measures

*4.1 Description of first aid measures

*General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

*After inhalation:

Provide fresh air, warmth and rest. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Obtain medical attention if any discomfort continues.

*After skin contact: Generally the product does not irritate the skin.

*After eve contact:

Promptly wash eyes with plenty of water for up to 15 minutes. Open eyes wide apart and rinse well to remove any contact lenses. Do not remove contact lenses by hand. Continue to rinse. Get medical attention if symptoms persist.

*After swallowing:

Do not induce vomiting; call for medical help immediately. Rinse mouth thoroughly with water and give large amounts of water to drink. Never give anything by mouth to an unconscious person.

*4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

*4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

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Trade name: MELTING POINT STANDARD VANILLIN 81 °C to 83 °C

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SECTION 5: Firefighting measures

*5.1 Extinguishing media

*Suitable extinguishing agents:

Indications shall be given whether any extinguishing media are inappropriate for a particular situation involving the substance or mixture

Use fire extinguishing methods suitable to surrounding conditions.

*5.2 Special hazards arising from the substance or mixture No further relevant information available.

*5.3 Advice for firefighters

*Protective equipment:

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers

SECTION 6: Accidental release measures

*6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment as described in Section 8 below. Keep unprotected persons away.

*6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

*6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

*6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

*7.1 Precautions for safe handling

Keep receptacles tightly sealed.

No special precautions are necessary if used correctly.

*Information about fire - and explosion protection: No special measures required.

*7.2 Conditions for safe storage, including any incompatibilities

Storage:

*Requirements to be met by storerooms and receptacles: No special requirements.

*Information about storage in one common storage facility: Not required.

*Further information about storage conditions: None.

*7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

*8.1 Control parameters

*Ingredients with limit values that require monitoring at the workplace:

CAS: 121-33-5 Vanillin

WEEL (USA) Long-term value: 10 mg/m³

*Additional information: The lists valid during the making were used as basis.

*8.2 Exposure controls

*Appropriate engineering controls No further data; see section 7.

*Individual protection measures, such as personal protective equipment

*General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

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Trade name: MELTING POINT STANDARD VANILLIN 81 °C to 83 °C

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*Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges as back up to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

*Hand protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Always ensure that gloves are inspected before use.

Selection of protective gloves must include consideration of the penetration times along with rates of diffusion and degradation. The selected glove should comply with the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it.

*Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

*Penetration time of glove material

In the absence of data above, the exact break through time has to be sourced from the manufacturer of the protective gloves and has to be observed.

*Eye/face protection Not required.

SECTION 9: Physical and chemical properties

*General Information

*Physical state Liquid

*Colour: Light yellow

*Odour: Characteristic

*Odour threshold: Not determined.

*Melting point/freezing point: 81.5 °C

*Boiling point or initial boiling point and boiling

range 285 °C

*Flammability Product is not flammable.

*Lower and upper explosion limit

*Lower:

*Upper:

Not determined.

Not determined.

*Flash point:

160 °C

*Decomposition temperature:

Not determined.

*pH 4.3

*Viscosity:

*Kinematic viscosity Not applicable.
*Dynamic: Not applicable.

*Solubility *water at 20 °C: 11 g/l

*Partition coefficient n-octanol/water (log value) Not determined.
*Vapour pressure: Not applicable.

*Density and/or relative density

*Density at 20 °C: 1.06 g/cm³

*Relative density Not determined.

*Vapour density Not applicable.

*Particle characteristics

See section 3.

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Trade name: MELTING POINT STANDARD VANILLIN 81 °C to 83 °C

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*9.2	Oth	ier	in	form	ation

*Appearance:

*Form:

Liquid

*Important information on protection of health and

environment, and on safety.

*Ignition temperature:

Not determined.

*Explosive properties:

Product does not present an explosion hazard.

*Molecular weight

152.15 g/mol

*Change in condition

*Evaporation rate

Not applicable.

*Information with regard to physical hazard classes

*Explosives Void *Flammable gases Void Void *Aerosols Void *Oxidising gases Void *Gases under pressure *Flammable liquids Void Void *Flammable solids Void *Self-reactive substances and mixtures Void *Pyrophoric liquids *Pyrophoric solids Void *Self-heating substances and mixtures Void *Substances and mixtures, which emit flammable Void gases in contact with water *Oxidising liquids Void *Oxidising solids Void *Organic peroxides Void *Corrosive to metals Void *Desensitised explosives Void

SECTION 10: Stability and reactivity

- *10.1 Reactivity No further relevant information available.
- *10.2 Chemical stability
- *Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- *10.3 Possibility of hazardous reactions No dangerous reactions known.
- *10.4 Conditions to avoid No further relevant information available.
- *10.5 Incompatible materials: No further relevant information available.
- *10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- *11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- *Acute toxicity Harmful if swallowed.
- *LD/LC50 values relevant for classification:

CAS: 121-33-5 Vanillin

Oral LD50 1,580 mg/kg (rat)

- *Skin corrosion/irritation Based on available data, the classification criteria are not met.
- *Serious eye damage/irritation Based on available data, the classification criteria are not met.
- *Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- *Germ cell mutagenicity Based on available data, the classification criteria are not met.
- *Carcinogenicity Based on available data, the classification criteria are not met.
- *Reproductive toxicity Based on available data, the classification criteria are not met.

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(Contd. of page 5)

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- *STOT-single exposure Based on available data, the classification criteria are not met.
- *STOT-repeated exposure Based on available data, the classification criteria are not met.
- *Aspiration hazard Based on available data, the classification criteria are not met.
- *11.2 Information on other hazards
- *Endocrine disrupting properties

Substance is not listed.

SECTION 12: Ecological information

- *12.1 Toxicity
- *Aquatic toxicity: No further relevant information available.
- *12.2 Persistence and degradability No further relevant information available.
- *12.3 Bioaccumulative potential No further relevant information available.
- *12.4 Mobility in soil No further relevant information available.
- *12.5 Results of PBT and vPvB assessment
- *PBT: Not applicable.
- *vPvB: Not applicable.
- *12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- *12.7 Other adverse effects
- *Additional ecological information:
- *General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- *13.1 Waste treatment methods
- *Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

*European waste catalogue

HP6 Acute Toxicity

- *Uncleaned packaging:
- *Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information *14.1 UN number or ID number *ADR, IMDG, IATA Void *14.2 UN proper shipping name *ADR Void Void *IMDG, IATA Void *14.3 Transport hazard class(es) *ADR, IMDG, IATA *Class Void *14.4 Packing group Void *ADR, IMDG, IATA

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		(Contd. of page 6)	
*14.5 Environmental hazards:	Not applicable.		
*14.6 Special precautions for user	Not applicable.		
*14.7 Maritime transport in bulk according to IMO			
instruments	Not applicable.		
*UN ''Model Regulation'':	Void		

SECTION 15: Regulatory information

- *15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
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- *Named dangerous substances ANNEX I Substance is not listed.

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- *Contact: sds@reagecon.ie
- *Date of previous version: 16.04.2024 *Version number of previous version: 8
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