Kit components

Product code	Description
11055018	**Melting Point Standard Set 4-Nitrotoluene, Diphenylacetic Acid, Potassium Nitrate, Caffeine**

Components:

BMP0535	MELTING POINT STANDARD 4-NITROTOLUENE 51 °C to 54 °C
BMP1475	MELTING POINT STANDARD DIPHENYLACETIC ACID 146 °C to 148 °C
BMP2365	MELTING POINT STANDARD CAFFEINE 235 °C to 238 °C
BMP3345	MELTING POINT STANDARD POTASSIUM NITRATE 333 °C to 335 °C

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

Printing 26.06.2024 *version number 18 (replaces version 17)* *Revision: 09.05.2024*

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

***1.1 Product identifier**
***Trade name:** **MELTING POINT STANDARD 4-NITROTOLUENE 51 °C to 54 °C**

***Article number:** BMP0535
***CAS Number:**
99-99-0
***EC number:**
202-808-0
***Index number:**
609-006-00-3
***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:** SM61-J0QD-U00A-J4NW
***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**


GHS06 skull and crossbones

Acute Tox. 3	H301 Toxic if swallowed.
Acute Tox. 3	H311 Toxic in contact with skin.
Acute Tox. 3	H331 Toxic if inhaled.

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Safety data sheet
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Trade name: MELTING POINT STANDARD 4-NITROTOLUENE 51 °C to 54 °C

(Contd. of page 1)

GHS08 health hazard

STOT RE 2 H373 May cause damage to the liver, the blood and the immune system through prolonged or repeated exposure.

GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

***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**

GHS06 GHS08 GHS09

***Signal word** Danger

***Hazard-determining components of labelling:**
4-nitrotoluene
***Hazard statements**
H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.
H373 May cause damage to the liver, the blood and the immune system through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
***Precautionary statements**
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P321 Specific treatment (see on this label).
P330 Rinse mouth.
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
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: 99-99-0 4-nitrotoluene
***Identification number(s)**
***EC number:** 202-808-0
***Index number:** 609-006-00-3

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according to 1907/2006/EC, Article 31

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Trade name: MELTING POINT STANDARD 4-NITROTOLUENE 51 °C to 54 °C

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SECTION 4: First aid measures

*4.1 Description of first aid measures
*General information:
Immediately remove any clothing soiled by the product.
Remove breathing equipment only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
*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.
In case of unconsciousness place patient stably in side position for transportation.
*After skin contact:
Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if any discomfort continues.
*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. Get medical attention. Continue to rinse.
*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.

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: Mount respiratory protective device.

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:
Inform respective authorities in case of seepage into water course or sewage system.
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.
Ensure adequate ventilation.
*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
Thorough dedusting.

(Contd. on page 4)

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according to 1907/2006/EC, Article 31

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Trade name: MELTING POINT STANDARD 4-NITROTOLUENE 51 °C to 54 °C

(Contd. of page 3)

Ensure good ventilation/exhaustion at the workplace.
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:** Keep receptacle tightly sealed.*
***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: 99-99-0 4-nitrotoluene	
PEL (USA)	Long-term value: 30 mg/m³, 5 ppm Skin
REL (USA)	Long-term value: 11 mg/m³, 2 ppm Skin
TLV (USA)	Long-term value: 2 ppm Skin; BEI-M

***Ingredients with biological limit values:**	
CAS: 99-99-0 4-nitrotoluene	
BEI (USA)	1.5 % of hemoglobin Medium: blood Time: during or end of shift Parameter: Methemoglobin (background, nonspecific, semi-quantitative)

***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.
Store protective clothing separately.
Avoid contact with the eyes and skin.
***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.

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Trade name: MELTING POINT STANDARD 4-NITROTOLUENE 51 °C to 54 °C

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***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:**	Light yellow
***Odour:**	Characteristic
***Odour threshold:**	Not determined.
***Melting point/freezing point:**	51-54 °C
***Boiling point or initial boiling point and boiling range**	239 °C
***Flammability**	Product is not flammable.
***Lower and upper explosion limit**	
***Lower:**	Not determined.
***Upper:**	1.6 Vol %
***Flash point:**	106 °C
***Auto-ignition temperature:**	450 °C
***Decomposition temperature:**	Not determined.
***pH**	Not applicable.
***Viscosity:**	
***Kinematic viscosity**	Not applicable.
***Dynamic:**	Not applicable.
***Solubility**	
***water at 20 °C:**	0.345 g/l
***Partition coefficient n-octanol/water (log value)**	Not determined.
***Vapour pressure at 20 °C:**	0.13 hPa
***Density and/or relative density**	
***Density at 20 °C:**	1.392 g/cm³
***Relative density**	Not determined.
***Vapour density**	Not applicable.
***Particle characteristics**	
See section 3.	

***9.2 Other information**	
***Appearance:**	
***Form:**	Crystalline
***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**	137.14 g/mol
***Change in condition**	
***Evaporation rate**	Not applicable.

***Information with regard to physical hazard classes**	
***Explosives**	Void
***Flammable gases**	Void

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Trade name: MELTING POINT STANDARD 4-NITROTOLUENE 51 °C to 54 °C

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***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**	*Void*
***Self-heating substances and mixtures**	*Void*
***Substances and mixtures, which emit flammable gases in contact with water**	*Void*
***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** Toxic if swallowed, in contact with skin or if inhaled.
***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.
***STOT-single exposure** Based on available data, the classification criteria are not met.
***STOT-repeated exposure**
May cause damage to the liver, the blood and the immune system through prolonged or repeated exposure.
***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.

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(Contd. of page 6)

***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**
***Remark:** Toxic for fish
***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.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

*
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**	
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP6	Acute Toxicity
HP14	Ecotoxic

***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** UN3446

***14.2 UN proper shipping name**
***ADR** 3446 NITROTOLUENES, SOLID, ENVIRONMENTALLY HAZARDOUS
1664 NITROTOLUENE, FEST
***IMDG, IATA** NITROTOLUENES, SOLID

***14.3 Transport hazard class(es)**

***ADR**

***Class** 6.1 Toxic substances.
***Label** 6.1

***IMDG, IATA**

***Class** 6.1 Toxic substances.

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*Label	6.1
*14.4 Packing group *ADR, IMDG, IATA	II
*14.5 Environmental hazards: *Marine pollutant: *Special marking (ADR):	 No Symbol (fish and tree)
*14.6 Special precautions for user *Hazard identification number (Kemler code): *EMS Number: *Stowage Category	Warning: Toxic substances. 60 F-A,S-A A
*14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
*Transport/Additional information:	
*ADR *Limited quantities (LQ) *Transport category *Tunnel restriction code	 500 g 2 D/E
*UN "Model Regulation":	UN 3446 NITROTOLUENES, SOLID, 6.1, II, ENVIRONMENTALLY HAZARDOUS

*

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.
*Seveso category
H2 ACUTE TOXIC
E2 Hazardous to the Aquatic Environment
*Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
*Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

*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.

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Trade name: MELTING POINT STANDARD 4-NITROTOLUENE 51 °C to 54 °C

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***National regulations:**

***Breakdown regulations:**

Class	Share in %
I	100.0

***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:** 07.02.2024
***Version number of previous version:** 17
***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)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 3: Acute toxicity – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
***NO**

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

***1.1 Product identifier**
***Trade name:** MELTING POINT STANDARD DIPHENYLACETIC ACID 146 °C to 148 °C*

***Article number:** BMP1475*
***CAS Number:**
117-34-0*
***EC number:**
204-185-0*
***Index number:**
609-006-00-3*
***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:** YQ61-20DT-400T-7G7Y*
***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**

GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.

(Contd. on page 2)

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Trade name: MELTING POINT STANDARD DIPHENYLACETIC ACID 146 °C to 148 °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

GHS07

*Signal word Warning
*Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.
*Precautionary statements

P264	Wash thoroughly after handling.
P280	Wear eye protection / face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P337+P313	If eye irritation persists: Get medical advice/attention.

*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: 117-34-0 diphenylacetic acid
*Identification number(s)
*EC number: 204-185-0
*Index number: 609-006-00-3

* SECTION 4: First aid measures

*4.1 Description of first aid measures
*After inhalation: In case of unconsciousness place patient stably in side position for transportation.
*After skin contact:
Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if any discomfort continues.
*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.. If symptoms persist, consult a doctor.
*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.

(Contd. on page 3)

Safety data sheet
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Trade name: MELTING POINT STANDARD DIPHENYLACETIC ACID 146 °C to 148 °C

(Contd. of page 2)

*
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:** Pick up mechanically.
***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:** Keep receptacle tightly sealed.
***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.
Avoid contact with the eyes and skin.

(Contd. on page 4)

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***Respiratory protection:**
Not required.
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.
Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.
***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 physical and chemical properties**
***General Information**
***Physical state** Liquid

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Safety data sheet
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Printing 26.06.2024 version number 18 (replaces version 17) Revision: 09.05.2024

Trade name: MELTING POINT STANDARD DIPHENYLACETIC ACID 146 °C to 148 °C

(Contd. of page 4)

*Colour:	According to product specification
*Odour:	Characteristic
*Odour threshold:	Not determined.
*Melting point/freezing point:	147-149 °C
*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.
*Partition coefficient n-octanol/water (log value)	Not determined.
*Vapour pressure:	Not applicable.
*Density and/or relative density	
*Density at 20 °C:	1.117 g/cm³
*Relative density	Not determined.
*Vapour density	Not applicable.
*Particle characteristics	
See section 3.	

*9.2 Other information	
*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	212.25 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	Void
*Self-heating substances and mixtures	Void
*Substances and mixtures, which emit flammable gases in contact with water	Void
*Oxidising liquids	Void
*Oxidising solids	Void
*Organic peroxides	Void
*Corrosive to metals	Void

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***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** Based on available data, the classification criteria are not met.

***LD/LC50 values relevant for classification:**		
***CAS: 117-34-0 diphenylacetic acid**		
Oral	LD50	5,540 mg/kg (rat)

***Skin corrosion/irritation** Causes skin irritation.
***Serious eye damage/irritation** Causes serious eye irritation.
***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.
***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) (Self-assessment): 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.

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

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Trade name: MELTING POINT STANDARD DIPHENYLACETIC ACID 146 °C to 148 °C

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*
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**	
HP4	Irritant - skin irritation and eye damage

***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, 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:**	
***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.

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Trade name: MELTING POINT STANDARD DIPHENYLACETIC ACID 146 °C to 148 °C

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***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 (Self-assessment):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:** 07.02.2024
***Version number of previous version:** 17
***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
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
***NO**

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

Printing 26.06.2024 version number 16 (replaces version 15) Revision: 09.05.2024

* 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: BMP2365
*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: CS61-K036-F009-VTU1
*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

GHS07

Acute Tox. 4 H302 Harmful if swallowed.

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

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*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

*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)

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

(Contd. of page 2)

***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.

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(Contd. of page 3)

***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*
***Odour:**	*Characteristic*
***Odour threshold:**	*Not determined.*
***Melting point/freezing point:**	*234-236.5 °C*
***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:**	*>93 °C*
***Decomposition temperature:**	*Not determined.*
***pH**	*5.5-6.5*
***Viscosity:**	
***Kinematic viscosity**	*Not applicable.*
***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**	
***Density at 20 °C:**	*1.23 g/cm³*
***Relative density**	*Not determined.*
***Bulk density:**	*220 kg/m³*
***Vapour density**	*Not applicable.*
***Particle characteristics**	
See section 3.	

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

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***9.2 Other information**	
***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
***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**	Void
***Self-heating substances and mixtures**	Void
***Substances and mixtures, which emit flammable gases in contact with water**	Void
***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, 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:**	
***Marine pollutant:**	No

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

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*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: 07.02.2024
*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
Acute Tox. 4: Acute toxicity – Category 4
*NO

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

Printing 26.06.2024 version number 11 (replaces version 10) Revision: 09.05.2024

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

***1.1 Product identifier**
***Trade name:** MELTING POINT STANDARD POTASSIUM NITRATE 333 °C to 335 °C*

***Article number:** BMP3345*
CAS Number:
7757-79-1
EC number:
231-818-8
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:** KV61-20SK-R00T-J5E3*
***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**

GHS03 flame over circle

Ox. Sol. 2 H272 May intensify fire; oxidiser.

***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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***Hazard pictograms**

GHS03

***Signal word** Danger
***Hazard statements**
H272 May intensify fire; oxidiser.
***Precautionary statements**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep away from clothing and other combustible materials.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P370+P378 In case of fire: Use CO2, powder or water spray to extinguish.
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: 7757-79-1 potassium nitrate
***Identification number(s)**
***EC number:** 231-818-8

SECTION 4: First aid measures

***4.1 Description of first aid measures**
***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:** If symptoms persist consult doctor.
***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**
During heating or in case of fire poisonous gases are produced.

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***5.3 Advice for firefighters**
***Protective equipment:** Mount respiratory protective device.

SECTION 6: Accidental release measures

***6.1 Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
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:** Pick up mechanically.
***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** Prevent formation of dust.
***Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
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:** Wash hands before breaks and at the end of work.
***Respiratory protection:**
Not required.
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

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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:**	*Colourless*
***Odour:**	*Characteristic*
***Odour threshold:**	*Not determined.*
***Melting point/freezing point:**	*334 °C*
***Boiling point or initial boiling point and boiling range**	*400 °C*
***Flammability**	*Contact with combustible material may cause fire.*
***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 at 20 °C:**	*320 g/l*
***Partition coefficient n-octanol/water (log value)**	*Not determined.*
***Vapour pressure:**	*Not applicable.*
***Density and/or relative density**	
***Density at 20 °C:**	*2.109 g/cm³*
***Relative density**	*Not determined.*
***Vapour density**	*Not applicable.*
***Particle characteristics**	

See section 3.

***9.2 Other information**

***Appearance:**	
***Form:**	*Crystalline*
***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**	*101.1 g/mol*

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***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**	*Void*
***Self-heating substances and mixtures**	*Void*
***Substances and mixtures, which emit flammable gases in contact with water**	*Void*
***Oxidising liquids**	*Void*
***Oxidising solids**	*May intensify fire; oxidiser.*
***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** Based on available data, the classification criteria are not met.
***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.
***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.*

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***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**	
HP2	*Oxidising*

Uncleaned packaging:
***Recommendation:** Disposal must be made according to official regulations.*
***Recommended cleansing agents:** Water, if necessary together with cleansing agents.*

*

SECTION 14: Transport information

***14.1 UN number or ID number**	
***ADR, IMDG, IATA**	*UN1486*
***14.2 UN proper shipping name**	
***ADR**	*1486 POTASSIUM NITRATE*
	1486 POTASSIUM NITRATE
***IMDG, IATA**	*POTASSIUM NITRATE*
***14.3 Transport hazard class(es)**	
***ADR, IMDG, IATA**	

***Class**	*5.1 Oxidising substances.*
***Label**	*5.1*
***14.4 Packing group**	
***ADR, IMDG, IATA**	*III*
***14.5 Environmental hazards:**	*Not applicable.*
***14.6 Special precautions for user**	*Warning: Oxidising substances.*
***Hazard identification number (Kemler code):**	*50*
***EMS Number:**	*F-A,S-Q*
***Stowage Category**	*A*

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***Stowage Code**	SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
***14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.
***Transport/Additional information:**	
***ADR**	
***Limited quantities (LQ)**	5 kg
***Transport category**	3
***Tunnel restriction code**	E
***UN "Model Regulation":**	UN 1486 POTASSIUM NITRATE, 5.1, III

*

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.
***Seveso category** P8 OXIDISING LIQUIDS AND SOLIDS
***Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
***Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

***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 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 1 (Assessment by list): slightly 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:** 07.02.2024
***Version number of previous version:** 10
***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)

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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)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Ox. Sol. 2: Oxidizing solids – Category 2
***NO**