

Hazardous according to criteria of Australian Safety and Compensation Council.

1 Identification

- **Product identifier**
- **Trade name:** *STD-NGA CAL BLEND with/without Syringe Adapter*
- **Article number:**
N6107200
N6107201
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** *Laboratory chemicals*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**

Supplier/Local:

*PerkinElmer Australia
Lvl 2, Bldg 5, Brandon Office Park
530-540 Springvale Road
Glen Waverley
Melbourne
VIC 3150
Australia
1-800-033-391
ausales@perkinelmer.com*
- **Emergency telephone number:**
*CHEMTREC (within US) 800-424-9300
CHEMTREC (from outside US) +1 703-527-3887 (call collect)
CHEMTREC (within AU) +(61)-290372994*

2 Hazard(s) Identification

- **Classification of the substance or mixture**



exploding bomb

Unst. Expl. H200 Unstable explosives.

- **Label elements**
- **GHS label elements** *The product is classified and labelled according to the Globally Harmonised System (GHS).*
- **Hazard pictograms** *GHS01*
- **Signal word** *Danger*
- **Hazard statements**
H200 Unstable explosives.
- **Precautionary statements**
*P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P281 Use personal protective equipment as required.
P372 Explosion risk in case of fire.
P373 DO NOT fight fire when fire reaches explosives.
P380 Evacuate area.
P401 Store in accordance with local/regional/national/international regulations.*

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P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards**

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition and Information on Ingredients

· **Chemical characterisation: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

74-82-8	methane	Flam. Gas 1, H220 Press. Gas C, H280	81.43%
1333-74-0	hydrogen	Flam. Gas 1, H220 Press. Gas C, H280	5.0%
7727-37-9	nitrogen	Press. Gas R, H281	3.9%
74-84-0	ethane	Flam. Gas 1, H220 Press. Gas C, H280	3.0%
74-98-6	propane	Flam. Gas 1, H220 Press. Gas C, H280	2.02%
7440-37-1	argon	Press. Gas R, H281	1.02%
75-28-5	isobutane	Flam. Gas 1, H220 Press. Gas C, H280	1.01%

· **Additional Components**

106-97-8	butane	Flam. Gas 1, H220 Press. Gas C, H280	0.99%
78-78-4	isopentane	Flam. Liq. 1, H224 Asp. Tox. 1, H304 STOT SE 3, H336	0.49%
109-66-0	pentane	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336	0.48%
124-38-9	carbon dioxide	Press. Gas L, H280	0.4%
75-83-2	2,2-dimethylbutane	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315; STOT SE 3, H336	0.26%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First Aid Measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

In cases of frost bites, rinse with plenty of water. Do not remove clothing.

Call a doctor immediately.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist consult doctor.

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- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Wear self contained breathing apparatus for fire fighting if necessary
- **Additional information**
Cool endangered receptacles with water spray.
Vapors may travel considerable distance to source of ignition and flash back.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** Remove persons from danger area.
- **Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:** No special measures required.
- **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.

7 Handling and Storage

- **Handling:**
- **Precautions for safe handling** Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Prevent impact and friction.
- **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:** Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

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

74-82-8 methane

WES Asphyxiant

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1333-74-0 hydrogen	
WES	Asphyxiant
7727-37-9 nitrogen	
WES	Asphyxiant
74-84-0 ethane	
WES	Asphyxiant
74-98-6 propane	
WES	Asphyxiant
7440-37-1 argon	
WES	Asphyxiant

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

· **Respiratory protection:** Not required.

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Not required.

9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Gaseous

Colour: According to product specification

· **Odour:** Characteristic

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: Undetermined.

· **Flash point:** < 0 °C

· **Flammability (solid, gas):** Not determined.

· **Ignition temperature:** 595 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

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· Explosive properties:	<i>Risk of explosion by shock, friction, fire or other sources of ignition.</i>
· Explosion limits:	
Lower:	5 Vol %
Upper:	15 Vol %
· Vapour pressure:	<i>Not determined.</i>
· Density at 20 °C:	0.4362 g/cm ³
· Relative density	<i>Not determined.</i>
· Vapour density	<i>Not determined.</i>
· Evaporation rate	<i>Not applicable.</i>
· Solubility in / Miscibility with water:	<i>Not miscible or difficult to mix.</i>
· Partition coefficient: n-octanol/water:	<i>Not determined.</i>
· Viscosity:	
Dynamic:	<i>Not determined.</i>
Kinematic:	<i>Not determined.</i>
· Solvent content:	
Organic solvents:	4.2 %
· Other information	<i>No further relevant information available.</i>

10 Stability and Reactivity

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

11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** *No irritant effect.*
- **Serious eye damage/irritation** *No irritating effect.*
- **Respiratory or skin sensitisation** *No sensitising effects known.*

12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **Persistence and degradability** *No further relevant information available.*
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** *No further relevant information available.*
- **Mobility in soil** *No further relevant information available.*

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- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	UN1954
· ADG, IMDG, IATA	
· UN proper shipping name	COMPRESSED GAS, FLAMMABLE, N.O.S. (Methane, compressed gas, HYDROGEN, COMPRESSED)
· ADG, IMDG, IATA	
· Transport hazard class(es)	
· ADG, IMDG, IATA	
	
· Class	2.1
· Label	2.1
· Packing group	
· ADG	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· EMS Number:	F-D,S-U
· Stowage Category	D
· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADG	
· Limited quantities (LQ)	0

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· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1954 COMPRESSED GAS, FLAMMABLE, N.O.S. (METHANE, COMPRESSED GAS, HYDROGEN, COMPRESSED), 2.1

15 Regulatory information

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

74-82-8	methane	 Flam. Gas 1, H220 Press. Gas C, H280	81.43%
1333-74-0	hydrogen	 Flam. Gas 1, H220 Press. Gas C, H280	5.0%
7727-37-9	nitrogen	 Press. Gas R, H281	3.9%

· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms** GHS01

· **Signal word** Danger

· **Hazard statements**

H200 Unstable explosives.

· **Precautionary statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P281 Use personal protective equipment as required.

P372 Explosion risk in case of fire.

P373 DO NOT fight fire when fire reaches explosives.

P380 Evacuate area.

P401 Store in accordance with local/regional/national/international regulations.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category** P1a EXPLOSIVES

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 10 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50 t

· **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.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

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Disclaimer

The information provided in this Material Safety Data Sheet is based on our present knowledge, and believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be considered a warranty or quality specification. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards which exist. PerkinElmer Life and Analytical Sciences shall not be held liable for any damage resulting from handling or from contact with the product.

· **Relevant phrases**

H220 Extremely flammable gas.
H224 Extremely flammable liquid and vapour.
H225 Highly flammable liquid and vapour.
H280 Contains gas under pressure; may explode if heated.
H281 Contains refrigerated gas; may cause cryogenic burns or injury.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.

· **Contact:**

With in the USA: 1-(800)-762-4000
Out side the USA: 1-(203)-712-8488

· **Abbreviations and acronyms**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ADR: Accord européen sur le transport 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
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Unst. Expl.: Explosives – Unstable explosive
Flam. Gas 1: Flammable gases – Category 1
Press. Gas C: Gases under pressure – Compressed gas
Press. Gas R: Gases under pressure – Refrigerated liquefied gas

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