

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 05/29/2015

Reviewed on 05/29/2015

* 1 Identification

- **Product identifier**
- **Trade name: Precision Calibration Gas Mixture**
- **Product number:** G-5115
- **Relevant identified uses of the substance or mixture and uses advised against**
Used for calibration of gas measuring devices. Not suitable for human consumption.
- **Product description** Calibration gas mixture consisting of Oxygen.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Gasco Affiliates, LLC
320 Scarlett Blvd.
Oldsmar, FL 34677

- TELEPHONE NUMBER: (800) 910-0051
FAX NUMBER: (866) 755-8920
E-MAIL: info@gascogas.com
- **Emergency telephone number:**
Inside the US: 1-800-424-9300 (CHEMTREC, 24 hours)
Outside the US: 1-703-527-3887 (CHEMTREC, 24 hours)

* 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS03 Flame over circle

Oxid. Gas 1 H270 May cause or intensify fire; oxidizer.



GHS04 Gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.

- **Label elements**

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS03 GHS04

- **Signal word** Danger

- **Hazard statements**

May cause or intensify fire; oxidizer.

Contains gas under pressure; may explode if heated.

- **Precautionary statements**

Keep/Store away from clothing/combustible materials.

Keep reduction valves/valves and fittings free from oil and grease.

In case of fire: Stop leak if safe to do so.

Protect from sunlight. Store in a well-ventilated place.

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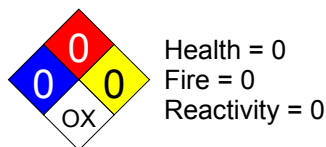
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- **Unknown acute toxicity:**
100 percent of the mixture consists of ingredient(s) of unknown toxicity.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



The substance possesses oxidizing properties.

- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Hazard(s) not otherwise classified (HNOC):** None known

* 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous Components:**

7782-44-7	Oxygen	Oxid. Gas 1, H270; Press. Gas, H280	99 - 99.999%
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* 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Generally the product does not irritate with inhalation.
Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
In case of unconsciousness, place patient securely on side position for transportation.
- **After skin contact:**
Generally the product does not irritate the skin.
Wash with soap and water.
If skin irritation occurs, consult a doctor.
- **After eye contact:**
Not anticipated under normal use.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Not a normal route of entry.
If swallowed and symptoms occur, consult a doctor.
- **Information for doctor:**
- **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, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- **Special hazards arising from the substance or mixture**

Closed containers may explode when exposed to extreme heat.

- **Advice for firefighters**

This gas mixture contains high concentrations of Oxygen which acts as an oxidizer and may intensify fires.

- **Protective equipment:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.

- **Environmental precautions:** Inform authorities in case of gas release.

- **Methods and material for containment and cleaning up:**

Dispose of the collected material according to regulations.

- **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** No special precautions are necessary if used correctly.

- **Information about protection against explosions and fires:**

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Do not cut, grind or weld on container that contains or contained product.

- **Conditions for safe storage, including any incompatibilities**

Store away from phosphorous, organic materials and powdered metals.

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** Store in a cool location.

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

- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.

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

* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.

- **Control parameters**

- **Components with occupational exposure limits:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Avoid contact with eyes, skin and clothing.

- **Breathing equipment:** Not required.

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· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Select glove material based on penetration times, rates of diffusion and 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 cannot 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 determined and observed by the manufacturer of the protective gloves.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:**



Protective work clothing

* 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:

Gaseous

Color:

Clear, colorless

· **Odor:**

Odorless

· **Odor threshold:**

Not determined.

· **pH-value:**

Not determined.

· **Change in condition**

Melting point/Melting range:

-219 °C (-362 °F)

Boiling point/Boiling range:

-182 °C (-296 °F)

· **Flash point:**

Not applicable.

· **Flammability (solid, gaseous):**

Contact with combustible material may cause fire.

· **Ignition temperature:**

Decomposition temperature:

Not determined.

· **Auto igniting:**

Product is not self-igniting.

· **Danger of explosion:**

Not determined.

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- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapor pressure:** Not determined.
- **Density @ 20 °C (68 °F):** 0.001 g/cm³ (0.008 lbs/gal)
- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not applicable.
- **Solubility in / Miscibility with Water @ 20 °C (68 °F):** 39 g/l
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 0.0 %
 - Other information** No further relevant information available.

*** 10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable under normal conditions.
- **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:** Phosphorous, organic materials and powdered metals.
- **Hazardous decomposition products:** No dangerous decomposition products known.

*** 11 Toxicological information**

- **Information on toxicological effects** The toxicity of this product is unknown.
- **Acute toxicity:**
- **Primary irritant effect:**
 - on the skin:** No irritating effect.
 - on the eye:** No irritating effect.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**
 - Group 1 - Carcinogenic to humans
 - Group 2A - Probably carcinogenic to humans
 - Group 2B - Possibly carcinogenic to humans
 - Group 3 - Not classifiable as to its carcinogenicity to humans
 - Group 4 - Probably not carcinogenic to humans

None of the ingredients are listed.

· NTP (National Toxicology Program)

None of the ingredients are listed.

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Trade name: Precision Calibration Gas Mixture**· OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

*** 12 Ecological information**

- **Toxicity** The hazards for the aquatic environment are unknown.
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.
- **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:**
Release all residual gas pressure in a well ventilated area. Verify the cylinder is completely empty (0 PSIG). Remove or cover any hazard labels. Return empty cylinder for recycling.
NOTE: Check with the local waste authority before placing any gas cylinder into waste container for pickup. GASCO encourages the consumer to return all cylinders.
- **Waste disposal key:**
The U.S. EPA has not published waste disposal numbers for this product's components.
- **Uncleaned packagings:**
- **Recommendation:** Return cylinder and unused product to supplier.

*** 14 Transport information**

- **UN-Number**
- **DOT, ADR, IMDG, IATA** UN1072
- **UN proper shipping name**
- **DOT** Oxygen, compressed
- **ADR** UN1072 Oxygen, compressed
- **IMDG, IATA** OXYGEN, COMPRESSED
- **Transport hazard class(es)**
- **DOT**

- **Class** 2 Gases
- **Label** 2.2/5.1

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- **Class** 2 10 Gases
- **Label** 2.2+5.1

· **IMDG**

- **Class** 2 Gases
- **Label** 2.2/5.1

· **IATA**

- **Class** 2 Gases
- **Label** 2.2 (5.1)
- **Packing group**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user** Warning: Gases
- **Danger code (Kemler):** 25
- **EMS Number:** F-C , S-W
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information:**
- **DOT**
- **Quantity limitations** On passenger aircraft/rail: 75 kg
On cargo aircraft only: 150 kg

· **ADR**

- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity

· **IMDG**

- **Limited quantities (LQ)** 0
- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity
- **UN "Model Regulation":** UN1072, Oxygen, compressed, 2.2 (5.1)

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* 15 Regulatory information

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

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **California Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS03 GHS04

- **Signal word** Danger

- **Hazard statements**

May cause or intensify fire; oxidizer.
Contains gas under pressure; may explode if heated.

- **Precautionary statements**

Keep/Store away from clothing/combustible materials.
Keep reduction valves/valves and fittings free from oil and grease.
In case of fire: Stop leak if safe to do so.
Protect from sunlight. Store in a well-ventilated place.

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Trade name: Precision Calibration Gas Mixture**· National regulations:**

The product is subject to be classified according with the latest version of the regulations on hazardous substances.

· State Right to Know

7782-44-7	Oxygen	 Oxid. Gas 1, H270;  Press. Gas, H280	99 - 99.999%
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All ingredients are listed.

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

*** 16 Other information****· Relevant phrases**

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· Date of preparation / last revision 05/29/2015 / -

· Abbreviations and acronyms:

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 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)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 Oxid. Gas 1: Oxidising Gases, Hazard Category 1
 Press. Gas: Gases under pressure: Compressed gas

· * Data compared to the previous version altered.

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