



Safety Data Sheet

Material Name: CALIBRATION GAS

SDS ID: 00203305

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

CALIBRATION GAS

Product Use

Industrial and Specialty Gas Applications.

Restrictions on Use

None known.

Details of the supplier of the safety data sheet

MATHESON TRI-GAS, INC.

150 Allen Road, Suite 302

Basking Ridge, NJ 07920

General Information: 1-800-416-2505

Emergency #: 1-800-424-9300 (CHEMTREC)

Outside the US: 703-527-3887 (Call collect)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Flammable Gases - Category 1

Gases Under Pressure - Compressed gas

Germ Cell Mutagenicity - Category 1B

Carcinogenicity - Category 1A

Reproductive Toxicity - Category 2

Specific target organ toxicity - Single exposure - Category 2

Specific target organ toxicity - Single exposure - Category 3

Specific target organ toxicity - Repeated exposure - Category 1

Hazardous to the Aquatic Environment - Acute - Category 2

Hazardous to the Aquatic Environment - Chronic - Category 2

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Extremely flammable gas.

Contains gas under pressure; may explode if heated.

Suspected of damaging fertility or the unborn child.

May cause damage to organs. (heart)

May cause drowsiness and dizziness.

Causes damage to organs through prolonged or repeated exposure. (central nervous system , nervous system)

Toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

Prevention



Safety Data Sheet

Material Name: CALIBRATION GAS

SDS ID: 00203305

Do not breathe gas.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Avoid release to the environment.
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Wear protective gloves/protective clothing/eye protection/face protection.

Response

Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
 Eliminate all ignition sources if safe to do so.
 IF exposed or concerned.
 Call a POISON CENTER or doctor/physician.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 Collect spillage.

Storage

Protect from sunlight. Store in a well-ventilated place.
 Keep container tightly closed.
 Store locked up.

Disposal

Dispose in accordance with all applicable regulations.

Other Hazards

Rapid release of compressed gas may cause frostbite.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS		
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CAS	Component Name	Percent
74-82-8	METHANE	75 - 90
74-84-0	ETHANE	3 - 10
74-98-6	PROPANE	1 - 5
7727-37-9	NITROGEN, COMPRESSED GAS	1 - 5
124-38-9	CARBON DIOXIDE, GAS	0.5 - 5
78-78-4	ISOPENTANE	0.1 - 3
75-28-5	ISOBUTANE	0.1 - 3
106-97-8	N-BUTANE	0.1 - 3
109-66-0	PENTANE	0.1 - 3
142-82-5	HEPTANE	0.01 - 2



Safety Data Sheet

Material Name: CALIBRATION GAS**SDS ID: 00203305**

110-54-3

N-HEXANE

0.05 - 1

Section 4 - FIRST AID MEASURES**Inhalation**

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Skin

If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115°F; 41-46°C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.

Eyes

Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion

If swallowed, get medical attention.

Most Important Symptoms/Effects**Acute**

central nervous system depression, frostbite, mild skin irritation, heart damage

Delayed

reproductive system effects, central nervous system damage, nervous system damage

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Note to Physicians

For inhalation, consider oxygen.

Section 5 - FIRE FIGHTING MEASURES**Extinguishing Media****Suitable Extinguishing Media**

carbon dioxide, regular dry chemical, Large fires: water spray or fog

Unsuitable Extinguishing Media

Do not direct water at source of leak or safety devices; icing may occur.

Special Hazards Arising from the Chemical

Severe fire hazard. May be ignited by heat, sparks or flames. Vapors may form explosive mixtures with air when heated. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back.

Containers may rupture or explode if exposed to heat.

Hazardous Combustion Products

Oxides of carbon

Fire Fighting Measures

Move container from fire area if it can be done without risk. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with water spray until well after the fire is out. Do not direct water at source of leak or safety devices; icing may occur. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment and Emergency Procedures**



Safety Data Sheet

Material Name: CALIBRATION GAS

SDS ID: 00203305

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Eliminate all sources of ignition. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if possible without personal risk. Reduce vapors with water spray. Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering. If possible, turn leaking containers so that gas escapes rather than liquid. Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material. Do not direct water at spill or source of leak. Prevent entry into waterways, sewers, basements, or confined areas. Isolate area until gas has dispersed. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304).

Environmental Precautions

Avoid release to the environment. Collect spillage.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye/face protection. Do not breathe gas. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment.

Conditions for Safe Storage, Including any Incompatibilities

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

Keep container tightly closed.

Store locked up.

Store and handle in accordance with all current regulations and standards. Grounding and bonding required. Protect from sunlight. Store in a well-ventilated area. Keep container tightly closed. Keep locked up. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. See original container for storage recommendations. Keep separated from incompatible substances.

Incompatible Materials

halogens, combustible materials, oxidizing materials

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

METHANE	74-82-8
ACGIH:	(See Appendix F: Minimal Oxygen Content, explosion hazard)
Mexico:	1000 ppm TWA [VLE-PPT]
ETHANE	74-84-0
ACGIH:	(See Appendix F: Minimal Oxygen Content, explosion hazard)
Mexico:	1000 ppm TWA [VLE-PPT]
PROPANE	74-98-6
ACGIH:	(See Appendix F: Minimal Oxygen Content, explosion hazard)
NIOSH:	1000 ppm TWA ; 1800 mg/m3 TWA



Safety Data Sheet

Material Name: CALIBRATION GAS**SDS ID: 00203305**

	2100 ppm IDLH (10% LEL)
OSHA (US):	1000 ppm TWA ; 1800 mg/m3 TWA
Mexico:	1000 ppm TWA [VLE-PPT]
NITROGEN, COMPRESSED GAS	7727-37-9
ACGIH:	(See Appendix F: Minimal Oxygen Content)
CARBON DIOXIDE, GAS	124-38-9
ACGIH:	5000 ppm TWA
	30000 ppm STEL
NIOSH:	5000 ppm TWA ; 9000 mg/m3 TWA
	30000 ppm STEL ; 54000 mg/m3 STEL
	40000 ppm IDLH
Europe:	5000 ppm TWA ; 9000 mg/m3 TWA
OSHA (US):	5000 ppm TWA ; 9000 mg/m3 TWA
Mexico:	5000 ppm TWA [VLE-PPT]
	30000 ppm STEL [PPT-CT]
ISOPENTANE	78-78-4
ACGIH:	1000 ppm TWA
Europe:	1000 ppm TWA ; 3000 mg/m3 TWA
Mexico:	600 ppm TWA [VLE-PPT]
ISOBUTANE	75-28-5
ACGIH:	1000 ppm STEL (explosion hazard)
NIOSH:	800 ppm TWA ; 1900 mg/m3 TWA
Mexico:	1000 ppm TWA [VLE-PPT]
N-BUTANE	106-97-8
ACGIH:	1000 ppm STEL (explosion hazard)



Safety Data Sheet

Material Name: CALIBRATION GAS**SDS ID: 00203305**

NIOSH:	800 ppm TWA ; 1900 mg/m3 TWA
	1600 ppm IDLH (>10% LEL)
Mexico:	1000 ppm TWA [VLE-PPT]
PENTANE	109-66-0
ACGIH:	1000 ppm TWA
NIOSH:	120 ppm TWA ; 350 mg/m3 TWA
	610 ppm Ceiling 15 min ; 1800 mg/m3 Ceiling 15 min
	1500 ppm IDLH (10% LEL)
Europe:	1000 ppm TWA ; 3000 mg/m3 TWA
OSHA (US):	1000 ppm TWA ; 2950 mg/m3 TWA
Mexico:	600 ppm TWA [VLE-PPT]
HEPTANE	142-82-5
ACGIH:	400 ppm TWA
	500 ppm STEL
NIOSH:	85 ppm TWA ; 350 mg/m3 TWA
	440 ppm Ceiling 15 min ; 1800 mg/m3 Ceiling 15 min
	750 ppm IDLH
Europe:	500 ppm TWA ; 2085 mg/m3 TWA
OSHA (US):	500 ppm TWA ; 2000 mg/m3 TWA
Mexico:	400 ppm TWA [VLE-PPT] ; 1600 mg/m3 TWA [VLE-PPT]
	500 ppm STEL [PPT-CT]
	Skin - potential for cutaneous absorption
N-HEXANE	110-54-3
ACGIH:	50 ppm TWA
	Skin - potential significant contribution to overall exposure by the cutaneous route



Safety Data Sheet

Material Name: CALIBRATION GAS**SDS ID: 00203305**

NIOSH:	50 ppm TWA ; 180 mg/m ³ TWA
	1100 ppm IDLH (10% LEL)
Europe:	20 ppm TWA ; 72 mg/m ³ TWA
OSHA (US):	500 ppm TWA ; 1800 mg/m ³ TWA
Mexico:	50 ppm TWA [VLE-PPT]
	Skin - potential for cutaneous absorption

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)**N-HEXANE (110-54-3)**

0.4 mg/l Medium: urine Time: end of shift at end of workweek Parameter: 2,5-Hexanedione without hydrolysis

Engineering Controls

Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment**Eye/face protection**

Wear splash resistant safety goggles. Contact lenses should not be worn. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

For the gas: Wear appropriate chemical resistant clothing. For the liquid: Wear appropriate protective, cold insulating clothing.

Respiratory Protection

Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use. Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode. Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Glove Recommendations

For the gas: Wear appropriate chemical resistant gloves. For the liquid: Wear insulated gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	gas	Physical State	gas
Odor	Not available	Color	Not available
Odor Threshold	Not available	pH	Not available
Melting Point	-183 °C (-297 °F Methane)	Boiling Point	-162 °C (-260 °F Methane)
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	Not available	Flammability (solid, gas)	Flammable gas



Safety Data Sheet

Material Name: **CALIBRATION GAS**SDS ID: **00203305**

Autoignition Temperature	Not available	Flash Point	-223 °C (-369 °F Methane)
Lower Explosive Limit	Not available	Decomposition temperature	Not available
Upper Explosive Limit	Not available	Vapor Pressure	760 mmHg @ -161 °C
Vapor Density (air=1)	0.555 (Methane)	Specific Gravity (water=1)	Not available
Water Solubility	Not available	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	Not available
Physical Form	compressed gas	Molecular Weight	Not available

Section 10 - STABILITY AND REACTIVITY

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Will not polymerize.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Containers may rupture or explode if exposed to heat.

Incompatible Materials

halogens, combustible materials, oxidizing materials

Hazardous decomposition products

Oxides of carbon

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure**Inhalation**

irritation, nausea, vomiting, dizziness, tingling sensation, suffocation, convulsions, coma, difficulty breathing, irregular heartbeat, headache, drowsiness, Disorientation, mood swings, muscle cramps, loss of coordination, visual disturbances, impotence, lung congestion, blood disorders, nerve damage, paralysis, brain damage, Unconsciousness, heart damage

Skin Contact

irritation, skin disorders, frostbite

Eye Contact

irritation, frostbite

Ingestion

ingestion of harmful amounts is unlikely

Acute and Chronic Toxicity**Component Analysis - LD50/LC50**



Safety Data Sheet

Material Name: CALIBRATION GAS

SDS ID: 00203305

The components of this material have been reviewed in various sources and the following selected endpoints are published:

ETHANE (74-84-0)

Inhalation LC50 Rat 658 mg/L 4 h

PROPANE (74-98-6)

Inhalation LC50 Rat >800000 ppm 15 min

ISOBUTANE (75-28-5)

Inhalation LC50 Rat 658 mg/L 4 h

N-BUTANE (106-97-8)

Inhalation LC50 Rat 658 g/m3 4 h

PENTANE (109-66-0)

Oral LD50 Rat >2000 mg/kg (no deaths occurred)

Dermal LD50 Rabbit 3000 mg/kg

Inhalation LC50 Rat 364 g/m3 4 h

HEPTANE (142-82-5)

Oral LD50 Mouse 5000 mg/kg

Dermal LD50 Rabbit 3000 mg/kg

Inhalation LC50 Rat 103 g/m3 4 h

N-HEXANE (110-54-3)

Oral LD50 Rat 25 g/kg

Dermal LD50 Rabbit 3000 mg/kg

Inhalation LC50 Rat 48000 ppm 4 h

Product Toxicity Data

Acute Toxicity Estimate

Dermal	> 2000 mg/kg
Inhalation - Gas	> 20000 ppm
Oral	> 2000 mg/kg

Immediate Effects

central nervous system depression, heart damage, mild skin irritation, frostbite

Delayed Effects

reproductive system effects, central nervous system damage, nervous system damage, peripheral nerve damage

Irritation/Corrosivity Data

mild skin irritation

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA.

Germ Cell Mutagenicity

No data available for the mixture.

Tumorigenic Data

No data available

Reproductive Toxicity

Available data characterizes components of this product as reproductive hazards.

Specific Target Organ Toxicity - Single Exposure



Safety Data Sheet

Material Name: CALIBRATION GAS

SDS ID: 00203305

heart, central nervous system

Specific Target Organ Toxicity - Repeated Exposure

central nervous system, nervous system

Aspiration hazard

Not applicable.

Medical Conditions Aggravated by Exposure

respiratory disorders, kidney disorders, heart or cardiovascular disorders, skin disorders and allergies, liver disorders, central nervous system disorders

Additional Data

Alcohol may enhance the toxic effects. Stimulants such as epinephrine may induce ventricular fibrillation.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Component Analysis - Aquatic Toxicity

ISOPENTANE	78-78-4
Invertebrate:	EC50 48 h Daphnia magna 2.3 mg/L IUCLID
PENTANE	109-66-0
Fish:	LC50 96 h Oncorhynchus mykiss 9.87 mg/L; LC50 96 h Pimephales promelas 11.59 mg/L; LC50 96 h Lepomis macrochirus 9.99 mg/L
Invertebrate:	EC50 48 h Daphnia magna 9.74 mg/L IUCLID
HEPTANE	142-82-5
Fish:	LC50 96 h Cichlid fish 375 mg/L
N-HEXANE	110-54-3
Fish:	LC50 96 h Pimephales promelas 2.1 - 2.98 mg/L [flow-through]

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility

No data available.

Other Toxicity

None known.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.



Safety Data Sheet

Material Name: CALIBRATION GAS

SDS ID: 00203305

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: METHANE, COMPRESSED

Hazard Class: 2.1

UN/NA #: UN1971

Required Label(s): 2.1

Marine pollutant

IMDG Information:

Shipping Name: METHANE, COMPRESSED

Hazard Class: 2.1

UN#: UN1971

Required Label(s): 2.1

Marine pollutant

International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

ISOPENTANE	78-78-4
IBC Code:	Category Y (related to Pentanes)
PENTANE	109-66-0
IBC Code:	Category Y (related to Pentanes)
HEPTANE	142-82-5
IBC Code:	Category X (related to Heptane isomers)

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

N-HEXANE	110-54-3
SARA 313:	1 % de minimis concentration
CERCLA:	5000 lb final RQ ; 2270 kg final RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Flammable; Gas Under Pressure; Carcinogenicity; Reproductive Toxicity; Specific Target Organ Toxicity; Germ Cell Mutagenicity

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
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Safety Data Sheet

Material Name: CALIBRATION GAS

SDS ID: 00203305

METHANE	74-82-8	No	Yes	Yes	Yes	Yes
ETHANE	74-84-0	No	Yes	Yes	Yes	Yes
PROPANE	74-98-6	No	Yes	Yes	Yes	Yes
NITROGEN, COMPRESSED GAS	7727-37-9	No	Yes	Yes	Yes	Yes
CARBON DIOXIDE, GAS	124-38-9	Yes	Yes	Yes	Yes	Yes
ISOPENTANE	78-78-4	No	Yes	No	Yes	Yes
ISOBUTANE	75-28-5	No	Yes	No	Yes	Yes
N-BUTANE	106-97-8	Yes	Yes	Yes	Yes	Yes
PENTANE	109-66-0	Yes	Yes	Yes	Yes	Yes
HEPTANE	142-82-5	Yes	Yes	Yes	Yes	Yes
N-HEXANE	110-54-3	No	Yes	Yes	Yes	Yes

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)



WARNING

This product can expose you to chemicals including N-HEXANE , which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

N-HEXANE	110-54-3
Repro/Dev. Tox	male reproductive toxicity , 12/15/2017

Component Analysis - Inventory

METHANE (74-82-8)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

ETHANE (74-84-0)



Safety Data Sheet

Material Name: CALIBRATION GAS**SDS ID: 00203305**

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

PROPANE (74-98-6)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

NITROGEN, COMPRESSED GAS (7727-37-9)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	No	No	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

CARBON DIOXIDE, GAS (124-38-9)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

ISOPENTANE (78-78-4)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

**Safety Data Sheet****Material Name: CALIBRATION GAS****SDS ID: 00203305**

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

ISOBUTANE (75-28-5)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

N-BUTANE (106-97-8)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

PENTANE (109-66-0)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

HEPTANE (142-82-5)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
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Safety Data Sheet

Material Name: **CALIBRATION GAS**

SDS ID: **00203305**

No	Yes	Yes	Yes	Yes	Yes	Yes
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N-HEXANE (110-54-3)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 2 Fire: 4 Instability: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

Updated: 05/01/2015

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne - Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper



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Safety Data Sheet

Material Name: CALIBRATION GAS

SDS ID: 00203305

Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

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