

Safety Data Sheet

Version 2.2

Revision Date 08/01/2016

SDS Number 300000000000

Print Date 12/16/2017

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : BREATHING AIR

Synonyms : Compressed air

Product Use Description : General Industrial

Manufacturer/Importer/Distributor : Versum Materials US, LLC
8555 South River Parkway
Tempe, AZ 85284
Exporter EIN No.475632014
www.versummaterials.com

Telephone : (602)282-1000

Emergency telephone number (24h) : 800-523-9374 USA
+1 610 481 7711 International

2. HAZARDS IDENTIFICATION

GHS classification

Gases under pressure - Compressed gas.

GHS label elements

Hazard pictograms/symbols



Signal Word: Warning

Hazard Statements:

H280: Contains gas under pressure; may explode if heated.
Supports Combustion.

Precautionary Statements:

Safety Data Sheet

Version 2.2

Revision Date 08/01/2016

SDS Number 300000000000

Print Date 12/16/2017

Storage : P410+P403:Protect from sunlight. Store in a well-ventilated place.

Hazards not otherwise classified

High pressure gas.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration (Volume)
Air	132259-10-0	100 %

Concentration is nominal. For the exact product composition, please refer to technical specifications.

4. FIRST AID MEASURES

- Eye contact : In case of direct contact with eyes, seek medical advice.
- Skin contact : Adverse effects not expected from this product.
- Ingestion : Ingestion is not considered a potential route of exposure.
- Inhalation : Move to fresh air.
- Inhalation : No data available.

Immediate Medical Attention and Special Treatment

Treatment : If exposed or concerned: Get medical attention/advice.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : All known extinguishing media can be used.
- Specific hazards : Can support combustion. Upon exposure to intense heat or flame, cylinder will vent rapidly and or rupture violently. Move away from container and cool with water from a protected position. If possible, stop flow of product. Keep adjacent cylinders cool by spraying with large amounts of water until the fire burns itself out. Most cylinders are designed to vent contents when exposed to elevated temperatures.
- Special protective equipment for fire-fighters : Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Safety Data Sheet

Version 2.2

Revision Date 08/01/2016

SDS Number 300000000000

Print Date 12/16/2017

Personal Precautions, Protective Equipment, and Emergency Procedures	: Ventilate the area.
Environmental precautions	: Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	: Ventilate the area.
Additional advice	: If possible, stop flow of product. If leak is from cylinder or cylinder valve, call the emergency telephone number. If the leak is in the user's system, close the cylinder valve and safely vent the pressure before attempting repairs.

7. HANDLING AND STORAGE

Handling

Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling or being knocked over. Use equipment rated for cylinder pressure. Protect cylinders from physical damage; do not drag, roll, slide or drop. Do not allow storage area temperature to exceed 50°C (122°F). Only experienced and properly instructed persons should handle compressed gases/cryogenic liquids. Before using the product, determine its identity by reading the label. Know and understand the properties and hazards of the product before use. When doubt exists as to the correct handling procedure for a particular gas, contact the supplier. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. Use an adjustable strap wrench to remove over-tight or rusted caps. Before connecting the container, check the complete gas system for suitability, particularly for pressure rating and materials. Before connecting the container for use, ensure that back feed from the system into the container is prevented. Ensure the complete gas system is compatible for pressure rating and materials of construction. Ensure the complete gas system has been checked for leaks before use. Employ suitable pressure regulating devices on all containers when the gas is being emitted to systems with lower pressure rating than that of the container. Never insert an object (e.g. wrench, screwdriver, pry bar, etc.) into valve cap openings. Doing so may damage valve, causing a leak to occur. Open valve slowly. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Close valve after each use and when empty. Replace outlet caps or plugs and container caps as soon as container is disconnected from equipment. Do not subject containers to abnormal mechanical shock. Never attempt to lift a cylinder by its valve protection cap or guard. Do not use containers as rollers or supports or for any other purpose than to contain the gas as supplied. Never strike an arc on a compressed gas cylinder or make a cylinder a part of an electrical circuit. Do not smoke while handling product or cylinders. Never re-compress a gas or a gas mixture without first consulting the supplier. Never attempt to transfer gases from one cylinder/container to another. Always use backflow protective device in piping. When returning cylinder install valve outlet cap or plug leak tight. Never use direct flame or electrical heating devices to raise the pressure of a container. Containers should not be subjected to temperatures above 50°C (122°F).

Storage

Open/close valve slowly. Close when not in use. Wear Safety Eye Protection. Check Safety Data Sheet before use. Use a back flow preventative device in the piping. Use only with equipment of compatible materials of construction, rated for cylinder pressure. Containers should be stored in a purpose build compound which should be well ventilated, preferably in the open air. Full containers should be stored so that oldest stock is used

Safety Data Sheet

Version 2.2

Revision Date 08/01/2016

SDS Number 300000000000

Print Date 12/16/2017

first. Observe all regulations and local requirements regarding storage of containers. Protect containers stored in the open against rusting and extremes of weather. Containers should not be stored in conditions likely to encourage corrosion. Containers should be stored in the vertical position and properly secured to prevent toppling. The container valves should be tightly closed and where appropriate valve outlets should be capped or plugged. Container valve guards or caps should be in place. Keep containers tightly closed in a cool, well-ventilated place. Store containers in location free from fire risk and away from sources of heat and ignition. Full and empty cylinders should be segregated. Do not allow storage temperature to exceed 50°C (122°F). Return empty containers in a timely manner.

Technical measures/Precautions

Containers should be segregated in the storage area according to the various categories (e.g. flammable, toxic, etc.) and in accordance with local regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment

- | | |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Respiratory protection | : Not required for properly ventilated areas. |
| Hand protection | : Wear working gloves when handling gas containers.
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. |
| Eye protection | : Safety glasses recommended when handling cylinders. |
| Skin and body protection | : Safety shoes are recommended when handling cylinders. |
| Special instructions for protection and hygiene | : Ensure adequate ventilation, especially in confined areas. |

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|---------------------|---------------------------------|
| Appearance | : Compressed gas. Colorless gas |
| Odor | : None. |
| Odor threshold | : No data available. |
| pH | : Not applicable. |
| Melting point/range | : No data available. |
| Boiling point/range | : -318 °F (-194.3 °C) |
| Flash point | : Not applicable. |

Safety Data Sheet

Version 2.2

Revision Date 08/01/2016

SDS Number 300000000000

Print Date 12/16/2017

Evaporation rate	: Not applicable.
Flammability (solid, gas)	: Refer to product classification in Section 2
Upper/lower explosion/flammability limit	: No data available.
Vapor pressure	: Not applicable.
Water solubility	: Not known, but considered to have low solubility.
Relative vapor density	: 1 (air = 1)
Relative density	: No data available.
Partition coefficient (n-octanol/water)	: Not applicable.
Auto-ignition temperature	: No data available.
Decomposition temperature	: No data available.
Viscosity	: Not applicable.
Molecular Weight	: 28.96 g/mol
Density	: 0.081 lb/ft ³ (0.0013 g/cm ³) at 70 °F (21 °C) Note: (as vapor)
Specific Volume	: 12.35 ft ³ /lb (0.7710 m ³ /kg) at 70 °F (21 °C)

10. STABILITY AND REACTIVITY

Chemical Stability	: Stable under normal conditions.
Conditions to avoid	: No data available.
Materials to avoid	: No data available.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous Reactions/Reactivity	: No data available.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Likely routes of exposure

Safety Data Sheet

Version 2.2

Revision Date 08/01/2016

SDS Number 300000000000

Print Date 12/16/2017

- Effects on Eye : In case of direct contact with eyes, seek medical advice.
- Effects on Skin : Adverse effects not expected from this product.
- Inhalation Effects : No adverse effect.
- Ingestion Effects : Ingestion is not considered a potential route of exposure.
- Symptoms : No data available.

Acute toxicity

- Acute Oral Toxicity : No data is available on the product itself.
- Inhalation : No data is available on the product itself.
- Acute Dermal Toxicity : No data is available on the product itself.
- Skin corrosion/irritation : No data available.
- Serious eye damage/eye irritation : No data available.
- Sensitization. : No data available.

Chronic toxicity or effects from long term exposures

- Carcinogenicity : No data available.
- Reproductive toxicity : No data is available on the product itself.
- Germ cell mutagenicity : No data is available on the product itself.
- Specific target organ systemic toxicity (single exposure) : No data available.
- Specific target organ systemic toxicity (repeated exposure) : No data available.
- Aspiration hazard : No data available.

Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure

None.

12. ECOLOGICAL INFORMATION

Safety Data Sheet

Version 2.2

Revision Date 08/01/2016

SDS Number 300000000000

Print Date 12/16/2017

Ecotoxicity effects

Aquatic toxicity : No data is available on the product itself.

Toxicity to other organisms : No data available.

Persistence and degradability

Biodegradability : No data is available on the product itself.

Mobility : Because of its high volatility, the product is unlikely to cause ground pollution.

Bioaccumulation : Refer to Section 9 "Partition Coefficient (n-octanol/water)".

Further information

No ecological damage caused by this product.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products : Return unused product in original cylinder to supplier. Contact supplier if guidance is required.

Contaminated packaging : Return cylinder to supplier.

14. TRANSPORT INFORMATION

DOT

UN/ID No. : UN1002
Proper shipping name : Air, compressed
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

IATA

UN/ID No. : UN1002
Proper shipping name : Air, compressed
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

IMDG

UN/ID No. : UN1002
Proper shipping name : AIR, COMPRESSED
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

Safety Data Sheet

Version 2.2

Revision Date 08/01/2016

SDS Number 300000000000

Print Date 12/16/2017

TDG

UN/ID No. : UN1002
Proper shipping name : AIR, COMPRESSED
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

Further Information

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact customer service.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):

None.

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on Inventory.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification
Sudden Release of Pressure Hazard.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

16. OTHER INFORMATION

NFPA Rating

Health : 0

Safety Data Sheet

Version 2.2

Revision Date 08/01/2016

SDS Number 300000000000

Print Date 12/16/2017

Fire : 0
Instability : 0

HMIS Rating

Health : 0
Flammability : 0
Physical hazard : 3

Prepared by : Versum Materials, Product Regulatory Department

Telephone : (602)282-1000

Preparation Date : 12/16/2017

For additional information, please visit our Versum Materials' Product Stewardship web site.
<http://www.versummaterials.com/productstewardship/>
