

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **Water, enriched in Oxygen 18**

Chemical Formula H₂O

Molecular Weight 18.01528

CAS No. 7732-18-5

RTECS No. ZC0110000

Common Synonyms Dihydrogen oxide; enriched water; heavy oxygen

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2. HAZARDOUS IDENTIFICATION

NFPA Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 0 Flammability = 0 Reactivity = 0



HMIS Ratings: (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health Hazard = 0 Flammability = 0 Physical Hazard = 0

HEALTH HAZARD	0
FLAMMABILITY	0
PHYSICAL HAZARD	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name:	Water
CAS No.:	7732-18-5
Chemical Formula:	H ₂ O
Molecular Weight:	18.01528

4. FIRST AID MEASURES

<i>Oral Exposure</i>	None under normal use. Get medical attention if symptoms occur.
<i>Inhalation Exposure</i>	If inhaled, remove person to fresh air. Seek immediate medical attention/advice.
<i>Dermal Exposure</i>	None under normal use. Get medical attention if symptoms occur.
<i>Eye Exposure</i>	None under normal use. Get medical attention if symptoms occur.
<i>Notes to Physician</i>	Treat symptomatically.

5. FIREFIGHTING MEASURES

<i>Flash Point</i>	N/A
<i>Autoignition Temperature</i>	N/A
<i>Flammability</i>	N/A
<i>Suitable Extinguishing Media</i>	Dry chemical or CO ₂ . Water spray, fog or regular foam.

Firefighting

<i>Protective Equipment</i>	As in any fire, wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH-approved or equivalent) and full protective gear.
<i>Specific Hazard(s)</i>	May ignite combustibles (wood, paper, oil, clothing, etc.). High oxygen concentrations vigorously accelerate combustion. Cylinders may rupture under extreme heat. Continue to cool fire exposed cylinders until flames are extinguished. Damaged cylinders should be handled only by specialists.

6. ACCIDENTAL RELEASE MEASURES

<i>Personal Precautions</i>	Wear protective equipment. Ensure adequate ventilation. Monitor oxygen level.
<i>Methods for Cleaning Up</i>	After a spill, the floor may be slippery. Wipe up the floor completely. Keep combustibles (wood, paper, oil, etc) away from spilled material.

7. HANDLING AND STORAGE

<i>Handling</i>	User Exposure: Avoid inhalation.
<i>Storage</i>	Keep tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<i>Engineering Controls</i>	Mechanical exhaust
Personal Protective Equipment	
<i>Eye</i>	Chemical safety goggles
<i>General Hygiene Measures</i>	Follow good laboratory practices when handling this material

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

<i>Form:</i>	Liquid
<i>Color:</i>	Colorless
<i>Odor:</i>	Odorless

Safety Data

Molecular Weight:	18.02 amu	Solvent Content:	N/A
pH:	6 - 8	Evaporation Rate:	N/A
BP/BP Range:	100 °C at 760 mm Hg	Viscosity:	N/A
MP/MP Range:	N/A	Surface Tension:	N/A
Freezing Point:	0 °C	Partition Coefficient:	N/A
Vapor Pressure:	N/A	Decomposition Temperature:	N/A
Vapor Density:	N/A	Flash Point:	N/A
Saturated Vapor Concentration:	N/A	Explosion Limits:	N/A
SG/Density:	1 g/cm ³	Flammability:	N/A
Bulk Density:	N/A	Autoignition Temperature:	N/A
Odor Threshold:	N/A	Refractive Index:	1.333
Volatile %:	N/A	Optical Rotation:	N/A
VOC Content:	N/A	Miscellaneous Data:	N/A
Solubility:	N/A		

N/A = not available

10. STABILITY AND REACTIVITY

<i>Stability</i>	Stable
<i>Hazardous Decomposition Products</i>	Oxygen, hydrogen gas
<i>Hazardous Polymerization</i>	Will not occur

11. TOXICOLOGICAL INFORMATION

Routes of Exposure

<i>Skin Contact</i>	May cause skin irritation
<i>Skin Absorption</i>	May be harmful if absorbed through the skin
<i>Eye Contact</i>	May cause eye irritation
<i>Inhalation</i>	May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
<i>Ingestion</i>	May be harmful if swallowed
<i>Signs and Symptoms of Exposure</i>	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
<i>Conditions Aggravated by Exposure</i>	Toxicological data indicate a low order of toxicity. General good housekeeping practices should be followed.

Toxicity Data

<i>Rectal</i>	Woman: 180 g/kg: LDLO
<i>Remarks</i>	Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye: Mydriasis (pupillary dilation).
<i>Behavioral</i>	Convulsions or effect on seizure threshold
<i>Gastrointestinal</i>	Nausea or vomiting
<i>Oral</i>	Rat: >90 ml/kg: LD50
<i>Intra-peritoneal</i>	Mouse: 190 g/kg: LD50
<i>Intravenous</i>	Mouse: 25 g/kg: LD50

Chronic Toxicity

Chronic Toxicity	Prolonged inhalation of high oxygen concentrations (>75%) may affect coordination, attention, and cause tiredness of respiratory irritation.
Carcinogenicity	Contains no ingredient listed as a carcinogen
Irritation	No information available
Sensitization	No information available
Reproductive Toxicity	No information available
Developmental Toxicity	No information available
Synergistic Materials	None known
Target Organ Effects	None known

12. ECOLOGICAL INFORMATION

Ecotoxicity

Will not bioconcentrate. Does not contain ozone-depleting chemical (40 CFR Part 82).

13. DISPOSAL CONSIDERATION

Product

Observe all federal, state and local environmental regulations.

Contaminated Packaging

Do not re-use empty containers.

14. TRANSPORT INFORMATION

Not Regulated

15. REGULATORY INFORMATION

TSCA	Complies
DSL	Complies
EINECS/ELINCS	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	No

Clean Water Act This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Risk and Process Safety Management Programs This material, as supplied, does not contain any regulated substances with specified thresholds under 40 CFR Part 68. This product does not contain any substances regulated as Highly Hazardous Chemicals pursuant to the 29 CFR Part 1910.110.

Clean Air Act Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61): This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA/SARA This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Prop. 65 This product does not contain any Proposition 65 chemicals.

International Regulations

Canada This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

16. OTHER INFORMATION

Prepared By	ISOFLEX USA PO Box 472615 San Francisco CA 94147 United States
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Revision Note	Update supplier address

ISOFLEX USA's Commonly Used Abbreviations and Acronyms*

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
ALARA	As Low As Is Reasonably Achievable
AMU	Atomic Mass Unit
ANSI	American National Standards Institute
BLS	Basic Life Support
CAM	Continuous Air Monitor
CAS	Chemical Abstracts Service (division of the American Chemical Society)
CEN	European Committee for Standardization
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CLP	Classification, Labelling and Packaging (European Union)
CPR	Controlled Products Regulations (Canada)
CWA	Clean Water Act (USA)
DAC	Derived Air Concentration (USA)
DOE	United States Department of Energy (USA)
DOT	United States Department of Transportation (USA)
DSL	Domestic Substances List (Canada)
EC50	Half Maximal Effective Concentration
EINECS	European Inventory of Existing Commercial Chemical Substances
EHS	Environmentally Hazardous Substance
ELINCS	European List of Notified Chemical Substances
EMS	Emergency Response Procedures for Ships Carrying Dangerous Goods
EPA	Environmental Protection Agency (USA)
EPCRA	Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986
GHS	Globally Harmonized System
HMIS	Hazardous Materials Identification System (USA)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Containers
ICAO	International Civil Aviation Organization
IDLH	Immediately Dangerous to Life or Health
IMDG	International Maritime Code for Dangerous Goods
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
LDLO	Lethal Dose Low
LOEC	Lowest-Observed-Effective Concentration
MARPOL	International Convention for the Prevention of Pollution from Ships
MSHA	Mine Safety and Health Administration (USA)
NCRP	National Council on Radiation Protection & Measurements (USA)
NDSL	Non-Domestic Substances List (Canada)
NFPA	National Fire Protection Association (USA)
NIOSH	National Institute for Occupational Safety and Health (USA)
NOEC	No Observed Effect Concentration
N.O.S.	Not Otherwise Specified
NRC	Nuclear Regulatory Commission (USA)
NTP	National Toxicology Program (USA)
OSHA	Occupational Safety and Health Administration (USA)
PBT	Persistent Bioaccumulative and Toxic Chemical
PEL	Permissible Exposure Limit
PIH	Poisonous by Inhalation Hazard
RCRA	Resource Conservation and Recovery Act (USA)
RCT	Radiation Control Technician
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Europe)
RID	Regulations Concerning the International Transport of Dangerous Goods by Rail
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments and Reauthorization Act (USA)
TDG	Transportation of Dangerous Goods (Canada)

TIH	Toxic by Inhalation Hazard
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
UN	United Nations (Number)
VOC	Volatile Organic Compound
vPvB	Very Persistent Very Bioaccumulative Chemical
WGK	Wassergefährdungsklassen (Germany: Water Hazard Classes)
WHMIS	Workplace Hazardous Materials Information System

*One or more of the above-listed items may not appear in this document.

General Disclaimer

For terms and conditions, including limitation of liability, please refer to the purchase agreement in effect between ISOFLEX USA (or any of its affiliates and subsidiaries) and the purchaser.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

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The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. ISOFLEX shall not be held liable for any damage resulting from handling or from contact with the above product.

The logo for ISO FLEX features the word "ISO" in a light blue, sans-serif font, followed by "FLEX" in a larger, bold, red, italicized sans-serif font. A large, light blue, stylized graphic element, resembling a curved arrow or a swoosh, is positioned behind the text, starting from the top left and curving down towards the bottom right.