

COMPANY IDENTITY: Univar  
 PRODUCT IDENTITY: HYDROGEN PEROXIDE 20-40%

SDS DATE: 06/19/2014  
 REPLACES: 09/26/2013

## SAFETY DATA SHEET

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System.

THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)

IMPORTANT: Read this SDS before handling & disposing of this product.

Pass this information on to employees, customers, & users of this product.

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: HYDROGEN PEROXIDE 20-40%  
 SDS NUMBER: CDS-1660  
 COMPANY IDENTITY: Univar  
 COMPANY ADDRESS: 17425 NE Union Hill Road  
 COMPANY CITY: Redmond, WA 98052  
 COMPANY PHONE: 1-425-889-3400  
 EMERGENCY PHONES: CHEMTREC: 1-800-424-9300 (USA)  
 CANUTEC: 1-613-996-6666 (CANADA)



### SECTION 2. HAZARDS IDENTIFICATION

**DANGER!!**

#### HAZARD STATEMENTS:

H100s = General, H200s = Physical, H300s = Health, H400s = Environmental

H220 Harmful if inhaled.  
 H240+242 Heating may cause an explosion or fire.  
 H271 May cause fire or explosion; Strong Oxidizer.  
 H290 May be corrosive to metals.  
 H302 Harmful if swallowed.  
 H314 Causes severe skin burns and eye damage.

#### PRECAUTIONARY STATEMENTS:

P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal

P210 Keep away from heat/sparks/open flames/hot surfaces.  
 P220 Keep/Store away from clothing and combustible materials.  
 P234 Keep only in original container.  
 P264 Wash skin thoroughly after handling.  
 P270 Do not eat, drink, or smoke when using this product.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell,  
 P330 Rinse mouth.  
 P370+378 In case of fire: Use water spray for extinction.  
 P370+380+375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.  
 P403+235 Store in a well-ventilated place. Keep cool.  
 P411 Store at temperatures not exceeding 40 C / 104 F.  
 P420 Store away from other materials.  
 P501 Dispose of contents/container to appropriate waste site or reclaimer in accordance with local and national regulations.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	WT %
Water	7732-18-5	231-791-2	60-80
Hydrogen Peroxide	7722-84-1	231-765-0	20-40

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

COMPANY IDENTITY: Univar  
PRODUCT IDENTITY: HYDROGEN PEROXIDE 20-40%

SDS DATE: 06/19/2014  
REPLACES: 09/26/2013

TRACE COMPONENTS: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

#### SECTION 4. FIRST AID MEASURES

##### GENERAL ADVICE:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists, refer to Section 8 for specific personal protective equipment.

##### EYE CONTACT:

If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. "Roll" eyes to expose more surface. Minimum flushing is for 15 minutes. Seek immediate medical attention.

##### SKIN CONTACT:

If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

##### INHALATION:

After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR). Seek immediate medical attention.

##### SWALLOWING:

If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

##### NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of label and SDS to physician or health professional with victim.

#### SECTION 5. FIRE FIGHTING MEASURES

##### FIRE & EXPLOSION PREVENTIVE MEASURES

Isolate from other materials. Isolate from heat, sparks, electrical equipment and open flame.

##### EXTINGUISHING MEDIA

Use water spray, or water fog extinguishing media.

##### SPECIAL FIRE FIGHTING PROCEDURES

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used.  
Do not enter confined fire-space without full bunker gear.  
(Helmet with face shield, bunker coats, gloves & rubber boots).  
Use NIOSH approved positive-pressure self-contained breathing apparatus.

COMPANY IDENTITY: Univar  
PRODUCT IDENTITY: HYDROGEN PEROXIDE 20-40%

SDS DATE: 06/19/2014  
REPLACES: 09/26/2013

## SECTION 5. FIRE FIGHTING MEASURES (CONTINUED)

### UNUSUAL EXPLOSION AND FIRE PROCEDURES

#### STRONG OXIDIZER!

Isolate from other materials, heat, sparks, electrical equipment & open flame.  
Closed containers may explode if exposed to extreme heat.  
Applying to hot surfaces requires special precautions.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

### PERSONAL PROTECTIVE EQUIPMENT

The proper personal protective equipment for incidental releases (such as: 1 Liter of the product released in a well-ventilated area), use impermeable gloves (triple-gloves (rubber gloves and nitrile gloves, over latex gloves), goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, specific for the material handled, chemically resistant suit and boots, and hard hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with latest OSHA and/or ANSI recommendations.

### ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

### CONTAINMENT AND CLEAN-UP MEASURES:

Absorb spilled liquid with polypads or other suitable absorbent materials. If necessary, neutralize using suitable buffering material, (acid with soda ash or base with phosphoric acid), and test area with litmus paper to confirm neutralization. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residue in suitable containers. dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13 - Disposal Considerations).

## SECTION 7. HANDLING AND STORAGE

### HANDLING

Use only with adequate ventilation. Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

### STORAGE

Isolate from other materials, heat, sparks, electrical equipment & open flame.  
Do not store above 49 C/120 F.  
Keep container tightly closed & upright when not in use to prevent leakage.

### NONBULK: CONTAINERS:

Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Empty containers should be handled with care. Never store food, feed, or drinking water in containers which held this product.

COMPANY IDENTITY: Univar  
 PRODUCT IDENTITY: HYDROGEN PEROXIDE 20-40%

SDS DATE: 06/19/2014  
 REPLACES: 09/26/2013

### SECTION 7. HANDLING AND STORAGE (CONTINUED)

#### BULK CONTAINERS:

All tanks and pipelines which contain this material must be labeled. Perform routine maintenance on tanks or pipelines which contain this product. Report all leaks immediately to the proper personnel.

#### TANK CAR SHIPMENTS:

Tank cars carrying this product should be loaded and unloaded in strict accordance with tank-car manufacturer's recommendation and all established on-site safety procedures. Appropriate personal protective equipment must be used (see Section 8, Engineering Controls and Personal Protective Equipment.). All loading and unloading equipment must be inspected, prior to each use. Loading and unloading operations must be attended, at all times. Tank cars must be level, brakes must be set or wheels must be locked or blocked prior to loading or unloading. Tank car (for loading) or storage tanks (for unloading) must be verified to be correct for receiving this product and be properly prepared, prior to starting the transfer operations. Hoses must be verified to be in the correct positions, before starting transfer operations. A sample (if required) must be taken and verified (if required) prior to starting transfer operations. All lines must be blown-down and purged before disconnecting them from the tank car or vessel.

#### PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Collect all rinsates and dispose of according to applicable Federal, State, Provincial, or local procedures.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
Water	7732-18-5	231-791-2	None Known	None Known
Hydrogen Peroxide	7722-84-1	231-765-0	1 ppm	1 ppm

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

#### RESPIRATORY EXPOSURE CONTROLS

Maintain airborne contaminant concentrations below exposure limits given above. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, European Standard EN 149, or applicable State regulations. If adequate ventilation is not available or there is potential for airborne exposure above the exposure limits, a respirator may be worn up to the respirator exposure limitations, check with respirator equipment manufacturer's recommendations/limitations. For a higher level of protection, use positive pressure supplied air respiration protection or Self-Contained Breathing Apparatus or if oxygen levels are below 19.5% or are unknown.

#### EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS

Positive pressure, full-face piece Self-Contained Breathing Apparatus; or positive pressure, full-face piece Self-Contained Breathing Apparatus with an auxilliary positive pressure Self-Contained Breathing Apparatus.

#### VENTILATION

LOCAL EXHAUST: Necessary                      MECHANICAL (GENERAL): Necessary  
 SPECIAL: None                                      OTHER: None  
 Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

#### EYE PROTECTION:

Splash goggles or safety glasses. Face-shields are recommended when the operation can generate splashes, sprays or mists.

#### HAND PROTECTION:

Wear appropriate impervious gloves for routine industrial use. Use impervious gloves for spill response, as stated in Section 6 of this SDS (Accidental Release Measures).

COMPANY IDENTITY: Univar  
 PRODUCT IDENTITY: HYDROGEN PEROXIDE 20-40%

SDS DATE: 09/26/2013  
 REPLACES: 09/08/2010

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

#### BODY PROTECTION:

Use body protection appropriate for task. Cover-all, rubber aprons, or chemical protective clothing made from impervious materials are generally acceptable, depending on the task.

#### WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at end of each shift & before eating, smoking or using the toilet. Remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

### SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE:	Liquid, Water-White
ODOR:	None
ODOR THRESHOLD:	Not Available
pH (Neutrality):	< 3.7
MELTING POINT/FREEZING POINT:	-15 to -33 C / +6 to -27 F
BOILING RANGE (IBP,50%,Dry Point):	100 108 176 C / 212 227 350 F
FLASH POINT (TEST METHOD):	Not Applicable
EVAPORATION RATE (n-BUTYL ACETATE=1):	0.094
FLAMMABILITY CLASSIFICATION:	Non-Combustible
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	Not Applicable
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Applicable
VAPOR PRESSURE (mm of Hg)@20 C	23 - 28
VAPOR DENSITY (air=1):	0.772
GRAVITY @ 68/68 F / 20/20 C:	
SPECIFIC GRAVITY (Water=1):	1.33
POUNDS/GALLON:	9.45
WATER SOLUBILITY:	Complete
PARTITION COEFFICIENT (n-Octane/Water):	Not Available
AUTO IGNITION TEMPERATURE:	Not Applicable
DECOMPOSITION TEMPERATURE:	Not Available
VOCs (>0.044 Lbs/Sq In) :	0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
TOTAL VOC'S (TVOC)*:	0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
NONEXEMPT VOC'S (CVOC)*:	0.0 Vol% /0.0 g/L / 0.000 Lbs/Gal
HAZARDOUS AIR POLLUTANTS (HAPS):	0.0 Wt% /0.0 g/L / 0.000 Lbs/Gal
NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C)	0.0

\* Using CARB (California Air Resources Board Rules).

### SECTION 10. STABILITY & REACTIVITY

#### STABILITY

Stable under normal conditions.

#### CONDITIONS TO AVOID

Excessive heat or contamination could cause the product to become unstable.

#### MATERIALS TO AVOID

Dirt, Cyanides, Reducing agents, wood, paper, other organics and combustibles, iron and other heavy metals, copper alloys and caustics.

#### HAZARDOUS DECOMPOSITION PRODUCTS

Oxygen (which supports combustion).

#### HAZARDOUS POLYMERIZATION

Will not occur.

COMPANY IDENTITY: Univar  
PRODUCT IDENTITY: HYDROGEN PEROXIDE 20-40%

SDS DATE: 06/19/2014  
REPLACES: 09/26/2013

**SECTION 11. TOXICOLOGICAL INFORMATION**

**ACUTE HAZARDS**

**EYE & SKIN CONTACT:**

Primary irritation to skin, defatting, dermatitis.  
Liquid is extremely irritating/corrosive to eyes, and may cause irreversible damage including blindness.  
Wash thoroughly after handling.

**INHALATION:**

Anesthetic. Irritates respiratory tract. Acute overexposure can cause serious nervous system depression. Vapor harmful.

**SWALLOWING:**

Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea.

**SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED**

**CONDITIONS AGGRAVATED**

Persons with severe skin, liver or kidney problems should avoid use.

**CHRONIC HAZARDS**

**CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:**

This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

**SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)**

**IRRITANCY OF PRODUCT:** This product is irritating to contaminated tissue.

**SENSITIZATION TO THE PRODUCT:** No component of this product is known to be a sensitizer.

**MUTAGENICITY:** This product is not reported to produce mutagenic effects in humans.

**EMBRYOTOXICITY:** This product is not reported to produce embryotoxic effects in humans.

**TERATOGENICITY:** This product is not reported to produce teratogenic effects in humans.

**REPRODUCTIVE TOXICITY:** This product is not reported to cause reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical which causes damage to a developing embryo (such as: within the eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with the reproductive process.

**MAMMALIAN TOXICITY INFORMATION**

LD50 (Oral):	1193 mg/kg (Rats)
LC50 (Inhalation):	> 0.17 mg/L (Rats)
LD50 (Skin):	> 2000 mg/kg (Rabbits)

COMPANY IDENTITY: Univar  
PRODUCT IDENTITY: HYDROGEN PEROXIDE 20-40%

SDS DATE: 06/19/2014  
REPLACES: 09/26/2013

**SECTION 12. ECOLOGICAL INFORMATION**

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

**EFFECT OF MATERIAL ON PLANTS AND ANIMALS:**

This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

**EFFECT OF MATERIAL ON AQUATIC LIFE:**

No aquatic environmental information is available on this product.

**MOBILITY IN SOIL**

This material is a mobile liquid.

**DEGRADABILITY**

This product is completely biodegradable.

**ACCUMULATION**

This product does not accumulate or biomagnify in the environment.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal.

**ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES. EPA CHARACTERISTIC: D001, D002**

**SECTION 14. TRANSPORT INFORMATION**

DOT/TDG SHIP NAME: UN2014, Hydrogen peroxide, aqueous solutions, 5.1, (8), PG-II  
DRUM LABEL: Oxidizer, Corrosive  
IATA / ICAO: UN2014, Hydrogen peroxide, aqueous solutions, 5.1, (8), PG-II  
IMO / IMDG: UN2014, Hydrogen peroxide, aqueous solutions, 5.1, (8), PG-II  
EMERGENCY RESPONSE GUIDEBOOK NUMBER: 140

**SECTION 15. REGULATORY INFORMATION**

**EPA REGULATION:**

SARA SECTION 311/312 HAZARDS: Acute Health, Fire

All components of this product are on the TSCA list.

This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.



COMPANY IDENTITY: Univar  
PRODUCT IDENTITY: HYDROGEN PEROXIDE 20-40%

SDS DATE: 06/19/2014  
REPLACES: 09/26/2013

**SECTION 15. REGULATORY INFORMATION (CONTINUED)**

**STATE REGULATIONS:**

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):

This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

**INTERNATIONAL REGULATIONS**

The components of this product are listed on the chemical inventories of the following countries:

Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS)G  
Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIoC),  
Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

**CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)**

C: Oxidizing Material.

D2B: Irritating to skin / eyes.

E: Corrosive Material.

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

**SECTION 16. OTHER INFORMATION**

**HAZARD RATINGS:**

HEALTH (NFPA): 3, HEALTH (HMIS): 3, FLAMMABILITY: 0, PHYSICAL HAZARD: 1  
(Personal Protection Rating to be supplied by user based on use conditions.)

This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

**EMPLOYEE TRAINING**

See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.



# Univar USA Inc Safety Data Sheet

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For Additional Information contact SDS Coordinator during business hours, Pacific time: (425) 889-3400

## **Notice**

Univar USA Inc. ("Univar") expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this SDS as a product specification. For product specification information refer to a product specification sheet and/or a certificate of analysis. These can be obtained from your local Univar sales office.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Univar makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Univar's control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process