

COMPANY IDENTITY: Univar USA Inc.  
PRODUCT IDENTITY: HYDROGEN PEROXIDE 20-40%

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## 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)

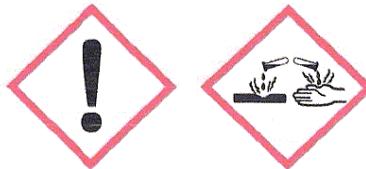
IMPORTANT: Read this SDS before handling & disposing of this product.  
Pass this information on to employees, customers, & users of this product.

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

PRODUCT IDENTITY: HYDROGEN PEROXIDE 20-40%  
SDS NUMBER: CDS1660  
NEW MSDS DATE: 11/21/2011  
COMPANY IDENTITY: Univar USA Inc.  
COMPANY ADDRESS: 17425 NE Union Hill Road  
COMPANY CITY: Redmond, WA 98052  
COMPANY PHONE: 1-425-889-3400  
EMERGENCY PHONES: CHEMREC: 1-800-424-9300 (USA)  
CANUTEC: 1-613-996-6666 (CANADA)

### SECTION 2. HAZARDS IDENTIFICATION

WARNING!!



#### RISK STATEMENTS:

R36/37/38 Irritating to eyes, respiratory system and skin.  
R9 Explosive when mixed with combustible material.  
R35 Causes severe burns.  
R37 Irritating to the respiratory system.

#### SAFETY STATEMENTS:

S3/9/14/49 Keep only in the original container in a cool, well-ventilated place.  
S24/25 Avoid contact with skin and eyes.

SEE SECTION 11 FOR OTHER TOXICOLOGICAL INFORMATION (ACUTE & CHRONIC HAZARDS)

### 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

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

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#### SECTION 4. FIRST AID MEASURES

##### 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 it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR). Seek immediate medical attention. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

##### 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 heat, combustibles, alkalies, and reducing agents.

##### EXTINGUISHING MEDIA

Use appropriate 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.

##### UNUSUAL EXPLOSION AND FIRE PROCEDURES

Isolate from oxidizers, heat, & open flame.

Closed containers may explode if exposed to extreme heat.

Applying to hot surfaces requires special precautions.

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## 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 gloves, apron & footwear impervious to this material. Wash clothing before reuse.  
To minimize static discharge when transferring, ensure electrical continuity by bonding and grounding all equipment. Use an inlet line diameter of at least 3.5 inches (8.9 centimeters) with a maximum flow rate of 1 meter/second.

### STORAGE

Isolate from combustibles, strong oxidants, reducers, alkalies.  
Do not store above 49 C/120 F. Keep container 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.

### 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.

### Annotation:

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## SECTION 7. HANDLING AND STORAGE (CONTINUED)

### 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

## 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).

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.

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

##### 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):	2.0
MELTING POINT/FREEZING POINT:	Not Available
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 Available
VAPOR PRESSURE (mm of Hg)@20 C	17.5
VAPOR DENSITY (air=1):	0.772
GRAVITY @ 68/68 F / 20/20 C:	
SPECIFIC GRAVITY (Water=1):	1.133
POUNDS/GALLON:	9.450
WATER SOLUBILITY:	Complete
PARTITION COEFFICIENT (n-Octane/Water):	Not Available
AUTO IGNITION TEMPERATURE:	Not Applicable
DECOMPOSITION TEMPERATURE:	Not Available
VOC'S (>0.44 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 California South Coast Air Quality Management District (SCAQMD) Rule 443.1.

#### SECTION 10. STABILITY & REACTIVITY

##### STABILITY

Stable under normal conditions (heat or contamination could cause product to become unstable).

##### CONDITIONS TO AVOID

Isolate from heat, & open flame.

##### MATERIALS TO AVOID

Isolate from dirt, cyanides, combustibles, oxidizers, reducers, alkalies.

##### HAZARDOUS DECOMPOSITION PRODUCTS

None.

##### HAZARDOUS POLYMERIZATION

Will not occur.

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## SECTION 11. TOXICOLOGICAL INFORMATION

### ACUTE HAZARDS

#### EYE & SKIN CONTACT:

Primary irritation to skin, defatting, dermatitis.  
Primary irritation to eyes, redness, tearing, blurred vision.  
Liquid can cause eye irritation. 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%.

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

No mammalian information is available on this product.

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## SECTION 12. ECOLOGICAL INFORMATION

### AQUATIC ANIMAL INFORMATION:

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 management options.  
Recycle / dispose of observing national, regional, state, provincial and local  
health, safety & pollution laws. If in doubt, contact appropriate agencies.

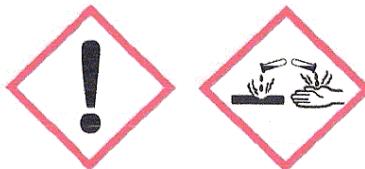
## SECTION 14. TRANSPORT INFORMATION

DOT SHIPPING 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



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%.

### INTERNATIONAL REGULATIONS

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

Australia, Canada, China, Europe (EINECS), Japan, Korea, United Kingdom.

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

D2B: Irritating to skin / eyes.

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#### SECTION 16. OTHER INFORMATION

##### HAZARD RATINGS:

HEALTH (NFPA): 2, HEALTH (HMIS): 2, FLAMMABILITY: 0, REACTIVITY: 2  
(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.