

SAFETY DATA SHEET

Promatic A4

UNICARE (CHEMICALS) LTD

1 Identification

GHS Product Identifier

Promatic A4

Other means of identification

Promatic A4

Recommended use of the chemical and restriction on use

Production

Industrial use as an intermediate

Industrial use in the textile industry

Industrial use of sewage and cooling or heating water treatment

Industrial use in paper pulp and paper production

Industrial cleaning use

Professional cleaning

use Consumers use

Biocide use in accordance with BPR 528/2012

Supplier's details

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2 Hazard(s) identification

Classification of the substance or mixture

Oxidizing liquids: Category 2

Acute toxicity - Oral: Category 4

Acute toxicity - Inhalation (Vapors): Category 4

Skin corrosion/irritation: Category 1

Serious eye damage/eye irritation: Category 1

Specific target organ toxicity (single exposure): Category 3

GHS label elements

Danger



May intensify fire; oxidizer

Harmful if swallowed

Harmful if inhaled

Causes severe skin burns and eye damage

Causes serious eye damage

May cause respiratory irritation

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

Keep/Store away from clothing/ flammable /combustible materials.

Wear protective gloves/protective clothing/eye protection/face protection.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

Wash contaminated clothing before reuse.

IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Use only outdoors or in a well-ventilated area.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container to comply with local, state and federal regulations

In case of fire: Use water to extinguish.

3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
Hydrogen peroxide	7722-84-1		40-55	

4 First-aid measures

Description of necessary first-aid measures

General instructions: Remove contaminated clothing immediately after contact with product .

After inhalation: If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately

After skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

After eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

After swallowing: Rinse mouth. Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed

Hydrogen Peroxide irritates respiratory system and, if inhaled, may cause inflammation and pulmonary edema. The effects may not be immediate. Overexposure symptoms are coughing, giddiness and sore throat. In case of accidental ingestion, necrosis may result from mucous membrane burns (mouth,

esophagus and stomach). Oxygen rapid release may cause stomach swelling and hemorrhaging, which may product major, or even fatal, injury to organs if a large amount has been ingested. In case of skin contact, may cause burns, erythema, blisters or even necrosis.

Indication of immediate medical attention and special treatment needed, if necessary

Hydrogen peroxide at these concentrations is a strong oxidant. Direct contact with the eye is likely to cause corneal damage especially if not washed immediately. Careful opthalmologic evaluation is recommended and the possibility of local corticosteroid therapy should be considered. Because of the likelihood of corrosive effects on the gastrointestinal tract after ingestion, and the unlikelihood of systemic effects, attempts at evacuating the stomach via emesis induction or gastric lavage should be avoided. There is a remote possibility, however, that a nasogastric or orogastric tube may be required for the reduction of severe distension due to gas formation.

5 Fire-fighting measures

Suitable extinguishing media

Water. Do not use any other substance

Specific hazards arising from the chemical

In closed unventilated containers, risk of rupture due to the increased pressure from decomposition. Contact with combustible material may cause fire.

Special protective actions for fire-fighters

Use water spray to cool fire exposed surfaces and protect personnel. Move containers from fire area if you can do it without risk. As in any fire, wear self-contained breathing apparatus and full protective gear.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions : Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Isolate and post spill area. Keep people away from and upwind of spill/leak. Eliminate all sources of ignition and remove combustible materials.

Other: Combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that is allowed to dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles can cause the material to ignite and result in fire.

Environmental precautions

See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for Containment : Dike to collect large liquid spills. Stop leak and contain spill if this can be done safely. Small spillage: Dilute with large quantities of water.

Methods for cleaning up : Flush area with flooding quantities of water. Hydrogen peroxide may be decomposed by adding sodium metabisulfite or sodium sulfite after diluting to about 5%

7 Handling and storage

Precautions for safe handling

Handling : Use only in well-ventilated areas. Keep/Store away from clothing/ combustible materials. Wear personal protective equipment. Never return unused hydrogen peroxide to original container. Contamination may cause decomposition and generation of oxygen gas which could result in high pressures and possible container rupture. Empty drums should be triple rinsed with water before discarding. Utensils used for handling hydrogenperoxide should only be made of glass, stainless steel,

aluminum or plastic. Pipes and equipment should be passivated before first use. Hydrogen peroxide should be stored only in vented containers and transferred only in a prescribed manner.

Conditions for safe storage, including any incompatibilities

Storage : Keep containers in cool areas out of direct sunlight and away from combustibles. Provide mechanical general and/or local exhaust ventilation to prevent release of vapor or mist into work environment. Containers must be vented. Keep/store only in original container. Store rooms or warehouses should be made of noncombustible materials with impermeable floors. In case of release, spillage should flow to safe area. Containers should be visually inspected on a regular basis to detect any abnormalities (swollen drums, increases in temperature, etc.).

Incompatible products : Combustible materials. Copper alloys, galvanized iron. Strong reducing agents. Heavy metals. Iron. Copper alloys. Contact with metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition.

8 Exposure controls/personal protection

Control parameters

Exposure Guidelines : Ingredients with workplace control parameters

Appropriate engineering controls

Engineering measures : Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation

Individual protection measures

Eye/Face:



Protection Use chemical splash-type monogoggles and a full-face shield made of polycarbonate, acetate, polycarbonate/acetate, PETG or thermoplastic.

Skin and Body Protection : For body protection wear impervious clothing such as an approved splash protective suit made of SBR rubber, PVC (PVC Outershell w/Polyester Substrate), Gore-Tex (Polyester trilaminate w/Gore-Tex), or a specialized HAZMAT Splash or Protective Suite (Level A, B, or C). For foot protection, wear approved boots made of NBR, PVC, Polyurethane, or neoprene. Overboots made of Latex or PVC, as well as firefighter boots or specialized HAZMAT boots are also permitted. DO NOT wear any form of boot or overboot made of nylon or nylon blends. DO NOT USE cotton, wool or leather as these materials react rapidly with higher concentrations of hydrogen peroxide. Completely submerge hydrogen peroxide contaminated clothing or other materials in water prior to drying. Residual hydrogen peroxide, if allowed to dry on materials such as paper, fabrics, cotton, leather, wood or other combustibles, can cause the material to ignite and result in a fire.

Hand Protection :



For hand protection, wear approved gloves made of nitrile, PVC, or neoprene. DO NOT use cotton, wool or leather for these materials react RAPIDLY with higher concentrations of hydrogen peroxide. Thoroughly rinse the outside of gloves with water prior to removal. Inspect regularly for leaks.

Respiratory Protection : If concentrations in excess of 10 ppm are expected, use NIOSH/DHHS approved Selfcontained breathing apparatus (SCBA) or other approved air-supplied respirator (ASR) equipment (e.g., a fullface airline respirator (ALR)). DO NOT use any form of air-purifying respirator (APR) or filtering facepiece (dust mask), especially those containing oxidizable sorbants such as activated carbon.

Hygiene measures : Avoid breathing vapors, mist or gas. Clean water should be available for washing in case of eye or skin contamination.

General information: Protective engineering solutions should be implemented and in use before personal protective equipment is considered.

9 Physical and chemical properties

Physical and chemical properties

Appearance: Clear, colorless liquid

Physical State: Liquid

Color: Colorless

Odor: odorless

Odor threshold: Not applicable

pH: ≤ 3.0

Melting point/freezing point: $-52\text{ }^{\circ}\text{C}$

Boiling Point/Range: $114\text{ }^{\circ}\text{C}$

Flash point: Not flammable

Evaporation Rate: > 1 (n-butyl acetate=1)

Flammability (solid, gas): Not flammable

Flammability Limit in Air: Not applicable

Upper flammability limit:

Lower flammability limit:

Vapor pressure: 18 mm Hg @ $30\text{ }^{\circ}\text{C}$

Vapor density: No information available

Density: 1.2 @ $20\text{ }^{\circ}\text{C}$

Specific gravity: 1.2

Water solubility: completely soluble

Solubility in other solvents: No information available

Partition coefficient: $\log K_{ow} = -1.5$ @ $20\text{ }^{\circ}\text{C}$

Autoignition temperature Not combustible Decomposition temperature $100\text{ }^{\circ}\text{C}$ (adiabatic)

Viscosity, kinematic: 1.17 cP @ $20\text{ }^{\circ}\text{C}$

Viscosity, dynamic: No information available

Explosive properties: No information available

Oxidizing properties: Strong oxidizer

Molecular weight: 34

Bulk density: Not applicable

10 Stability and reactivity

Reactivity

Reactive and oxidizing agent

Chemical stability

Stable under normal conditions. Decomposes on heating. Stable under recommended storage conditions

Possibility of hazardous reactions

Contact with organic substances may cause fire or explosion. Contact with metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition

Conditions to avoid

Excessive heat; Contamination; Exposure to UV-rays; pH variations

Incompatible materials

Combustible materials. Copper alloys, galvanized iron. Strong reducing agents. Heavy metals. Iron. Copper alloys. Contact with metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition.

Hazardous decomposition products

Oxygen which supports combustion. Liable to produce overpressure in container.

11 Toxicological information

Toxicological (health) effects

Oral: Toxic if swallowed. (Rat) LD50 = 225 - 1,200 mg/kg. (50 %) (as aqueous solution)

Dermal: Practically nontoxic. (Rat) LD50 = 9,200 mg/kg. (70 %) (as aqueous solution)

Inhalation: No deaths occurred. (Rat) 4 h LC0 > 0.17 mg/l. (50 %) (saturated vapor)

Specific target organ toxicity - single exposure: May cause respiratory irritation.

Skin Irritation: Causes severe skin burns. (Rabbit) (1 h) (50 %) (aqueous solution)

Eye Irritation: Causes serious eye damage. (Rabbit) (70 %) (aqueous solution)

Information on the likely routes of exposure

No other relevant information available.

Symptoms related to the physical, chemical and toxicological characteristics

Vapors, mists, or aerosols of hydrogen peroxide can cause upper airway irritation, inflammation of the nose, hoarseness, shortness of breath, and a sensation of burning or tightness in the chest. Prolonged exposure to concentrated vapor or to dilute solutions can cause irritation and temporary bleaching of skin and hair. Exposure to vapor, mist, or aerosol can cause stinging pain and tearing of eyes.

Delayed and immediate effects and also chronic effects from short and long term exposure

Carcinogenicity : This product contains hydrogen peroxide. The International Agency for Research on Cancer (IARC) has concluded that there is inadequate evidence for carcinogenicity of hydrogen peroxide in humans, but limited evidence in experimental animals (Group 3 - not classifiable as to its carcinogenicity to humans). The American Conference of Governmental Industrial Hygienists (ACGIH) has concluded that hydrogen peroxide is a 'Confirmed Animal Carcinogen with Unknown Relevance to Humans' (A3).

Chemical name	ACGIH	IARC	NTP	OSHA
Hydrogen peroxide 7722-84-1	A3	3		

Mutagenicity : This product is not recognized as mutagenic by Research Agencies In vivo tests did not show mutagenic effects.

Reproductive toxicity : This product is not recognized as reprotox by Research Agencies.

No toxicity to reproduction in animal studies.

STOT - single exposure : May cause respiratory irritation.

STOT - repeated exposure : Not classified.

Target organ effects Eyes, Respiratory System, Skin.

Aspiration hazard Aspiration risk: may cause lung damage if swallowed.

Numerical measures of toxicity (such as acute toxicity estimates)

No other relevant information available.

Interactive effects

No other relevant information available.

Where specific chemical data are not available

No other relevant information available.

Mixtures

No other relevant information available.

Mixture versus ingredient information

No other relevant information available

Other information

No other relevant information available

12 Ecological information

Toxicity

Ecotoxicity: Hydrogen peroxide is naturally produced by sunlight (between 0.1 and 4 ppb in air and 0.01 to 0.1 mg/L in water). Not expected to have significant environmental effects.

Hydrogen peroxide (7722-84-1)				
Active Ingredient(s)	Duration	Species	Value	Units
Hydrogen peroxide	96 h LC50	Fish Pimephales promelas	16.4	mg/L
Hydrogen peroxide	72 h LC50	Fish Leuciscus idus	35	mg/L
Hydrogen peroxide	48 h EC50	Daphnia pulex	2.4	mg/L
Hydrogen peroxide	24 h EC50	Daphnia magna	7.7	mg/L
Hydrogen peroxide	72 h EC50	Algae Skeletonema costatum	1.38	mg/L
Hydrogen peroxide	21 d NOEC	Daphnia magna	0.63	mg/L

Persistence and degradability

Hydrogen peroxide in the aquatic environment is subject to various reduction or oxidation processes and decomposes into water and oxygen. Hydrogen peroxide half-life in freshwater ranged from 8 hours to 20 days, in air from 10 - 20 hours, and in soils from minutes to hours depending upon microbiological activity and metal contamination.

Bioaccumulative potential

Material may have some potential to bioaccumulate but will likely degrade in most environments before accumulation can occur.

Mobility in soil

Will likely be mobile in the environment due to its water solubility but will likely degrade over time.

Other adverse effects

Decomposes into oxygen and water. No adverse effects.

13 Disposal considerations

Disposal methods

Recommendation: Can not be deposited with common waste. Do not empty into drains.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information

UN Number

DOT, IMDG, IATA: UN 2014

UN Proper Shipping Name

DOT, IMDG, IATA: HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Transport hazard class(es)

DOT, IMDG, IATA

Hazard class : 5.1

Subsidiary Hazard Class: 8

Packing group, if applicable

DOT, IMDG, IATA: II

Environmental hazards

Marine pollutant : no

Special precautions for user

Special Hazards: OX = Oxidizer

Protection = H (Safety goggles, gloves, apron, the use of supplied air or SCBA respirator is required in lieu of a vapor cartridge respirator)

Oxidizer: Class 2--Liquid

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not Applicable

15 Regulatory information

Safety, health and environmental regulations specific for the product in question

This substance should be managed in accordance with the requirements specified in the Cleaning Products (Oxidising [5.1.1], Corrosive) Group Standard 2006, HSNO Approval Number HSR002591.

16 Other information

Other information

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent