

PRODUCT SAFETY DATA SHEET

1. a. Product Name:	CATALASE
b. Product Code:	K980102, 3% ; K980100 , 15%
c. Product Formulation:	Hydrogen Peroxide (either 3 or 15% % in Water) (Without Stabilizer), Reagent ACS Synonyms: Carbamide Peroxide, Hydrogen Dioxide, Hydroperoxide, Urea Peroxide.
2. Hazard Identification:	
Symbol:	CAS # 7722-84-. Hazard C
Phrases:	R34
3. Storage Information:	Keep tightly closed when not is use.
4. Physical & Chemical Properties:	
a. Physical Description:	
b. Chemical Properties:	Strong oxidizer. Contact with other material may cause a fire. Harmful if inhaled. Corrosive. Causes eye and skin burns. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible
5. Fire Fighting Measures:	Use water spray, CO2, foam or dry powder as the extinguisher medium. Non-flammable, non-combustible.
6. Health Hazards:	
Toxicological Information:	<u>Eye:</u> Causes eye burns. Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. <u>Skin:</u> Causes skin burns. <u>Ingestion:</u> May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. May cause perforation of the digestive tract. May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. <u>Inhalation:</u> Harmful if inhaled. May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Causes chemical burns to the respiratory tract. May cause ulceration of nasal tissue, insomnia, nervous tremors with numb extremities, chemical pneumonia, unconsciousness, and death. <u>Chronic:</u> Prolonged or repeated skin contact may cause dermatitis.
7. Stability & Reactivity:	Decomposes slowly to release oxygen. <u>Incompatibilities with Other Materials:</u> Acids, bases, brass, copper, bronze, chromium trioxide, iron, lead, silver, zinc.

<u>Eyes:</u>	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed. Extensive irrigation is required (at least 30 minutes).
<u>Skin:</u>	Get medical aid immediately. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse. Destroy contaminated shoes.
<u>Ingestion:</u>	Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Call a poison control center.
<u>Inhalation:</u>	Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. DO NOT use mouth-to-mouth respiration.
	<u>Notes to Physician:</u> Treat symptomatically and supportively.
8. Accidental Release/ Spillage Measures:	Excessive liquid may be absorbed with sand, soda ash, or soaked into paper towels. Wash areas with soap and water to reduce staining. Wear protective gloves while cleaning. Discard with normal laboratory trash.
9 Disposal:	Empty container may be discarded as normal waste. Absorption material such as paper towels, etc., should be used if large amounts of liquid are to be discarded.
10 Exposure Control and Personal Protection:	Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Use with adequate ventilation. Do not store near combustible materials. Discard contaminated materials.
11. Ecological Information:	None implemented.
12. Storage & Handling:	Store at 2 to 8 C.
13. Other Information:	Oxidizer. Greatly increases the burning rate of combustible materials. Containers may explode in the heat of a fire. Some oxidizers may react explosively with hydrocarbons(fuel)..
Date:	04/10/01

CATALASE PRODUCT INSERT

K980100 CATALASE 15%
K980101 CATALASE 30%
K980102 CATALASE 3%

DISCUSSION:

A Catalase test is useful for the identification of many different bacteria. Since Streptococci lack the enzyme to catalyze hydrogen peroxide, and all Staphylococci possess it, 3% Catalase is used to separate the species. Also, *Listeria monocytogenes*, which is catalase positive can be differentiated from beta-hemolytic Streptococci. Most *Neisseria* species are catalase positive. 15% Catalase is used for anaerobes, with most anaerobes being catalase negative with the exceptions of several species in the *B. fragilis* group and a few of the anaerobic cocci. 30% Catalase is used with acid fast bacilli.

ACTIVE INGREDIENTS / MSDS:

Key Catalase test contain Hydrogen peroxide in varying strengths. Hydrogen peroxide can burn. If spilled on skin, wash immediately. Flush eyes with copious amounts of water for at least 15 minutes. If the person feels unwell after contact, seek medical advise.

LIMITATIONS/PRECAUTIONS:

It is recommended that catalase testing be done from media not containing blood. If this is not possible, be careful when picking colonies to pick up only organism, not digging into the agar as red blood cells do contain catalase and could cause a false positive. If you are not certain of your result, you may confirm by placing a small smear of agar only on the slide next to your organism smear. The agar alone should produce a much weaker reaction.

INSTRUCTIONS:

To use 3% and 15%, make a smear of the organism being tested on a clean slide. Add 1 drop of catalase reagent and observe for the immediate formation of bubbles. To use 30%, consult your laboratory's procedure for the specific property for which you are testing.

MATERIALS REQUIRED

Clean slides

Loop or sticks to make smear.

Consult your procedure for material required for use of 30% catalase with acid fast bacilli.

Catalase tests require preliminary growth on appropriate media. Consult a reference such as the Manual of Clinical Microbiology for recommendations.

QUALITY CONTROL

Positive and Negative controls should be run daily. Use quality control organism appropriate to the strength catalase you are using.

STORAGE

Store tightly closed at 2-8 C.

REFERENCES

- (1) Bailey and Scott's Diagnostic Microbiology, 8th Edition. Chapters 26 & 28.
- (2) Manual of Clinical Microbiology, 5th Edition, Chapters 30 & 41.

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