MATERIAL SAFETY DATA SHEET  
12% SODIUM HYPOCHLORITE

Use this sheet and answer the questions from page 9 in your text.

Section I: IDENTIFICATION

PRODUCT: sodium hypochlorite (12% solution)

SYNONYMS: sodium hypochlorite (12% available chlorine), Javel water, liquid bleach

CHEMICAL FORMULA: NaOClO

PRODUCT CODE NO.: 17547

Section II: HAZARDOUS INGREDIENTS

COMPOSITION: sodium hypochlorite solution 10–15 %

HAZARDS: oxidizer, corrosive

Section III: EMERGENCY OVERVIEW

Warning! Harmful if swallowed or inhaled. Causes irritation to eyes and respiratory tract. Causes substantial but temporary eye injury.

Section IV: POTENTIAL HEALTH EFFECTS & FIRST AID MEASURES

**INHALATION:** Poisonous vapour. Increasing doses may cause irritation of nose and throat, coughing, headaches, breathing difficulty, pulmonary edema, and lung injury. Remove patient to fresh air. Have patient rest and keep warm. Seek medical attention if symptoms are severe.

**INGESTION:** Poisonous. Causes burns, abdominal cramps, nausea, vomiting, lowered blood pressure, diarrhea, and shock. If patient is conscious, give 1–2 glasses of milk. Do not induce vomiting. Seek medical attention.

**EYE CONTACT:** Burns, irritation. Rinse with water for at least 15 minutes. Seek medical attention.

**SKIN CONTACT:** Burns, irritation. Rinse with plenty of water. Wash contaminated clothing before re-use.

Section V: PHYSICAL DATA

**BOILING POINT:** 101oC, starts decomposing to NaCl and NaClO3 at 40oC

**FREEZING/MELTING POINT:** −25°C

**VAPOUR DENSITY (AIR=1):** 1.3

**VAPOUR PRESSURE:** 17.5 mm Hg at 20°C

**SOLUBILITY IN WATER:** fully miscible

**SPECIAL FIRE FIGHTING PROCEDURES & PRECAUTIONS:** Wear self-contained breathing apparatus.

**UNUSUAL FIRE & EXPLOSION HAZARDS:** May release chlorine gas

Section VI: REACTIVITY

**STABILITY:** Inherently unstable; slowly decomposes liberating Cl2; unstable above 40°C

**CONDITIONS & MATERIALS TO AVOID:** Temperatures above 40oC, direct sunlight, acids, metals, ammonia, oxidizable materials, urea

**HAZARDOUS DECOMPOSITION PRODUCTS:** Cl2

Section VII: EMPLOYEE PROTECTION

**CONTROL MEASURES:** Use with adequate ventilation.

**RESPIRATORY PROTECTION:** Use chlorine gas respirator.

**PROTECTIVE CLOTHING:** Neoprene, rubber or plastic gloves, use plastic sleeves, apron and boots if handling large quantity.

**EYE PROTECTION:** Safety goggles

Section VIII: ENVIRONMENTAL PROTECTION

**ENVIRONMENTAL PRECAUTIONS:** Local exhaust acceptable

**SPILL OR LEAK PRECAUTIONS:** Wear gloves, boots, apron and goggles during clean-up.

**WASTE DISPOSAL:** Small spills: mop up with water and run to waste. Large spills: transfer to salvage container and consult with professional disposal company. Inform local authorities if liquid has entered surface drains or sewers.

Section IX: REGULATORY CONTROLS

**DEPT. OF TRANSPORTATION:** Regulated under Transport of Dangerous Goods

**DOT CLASSIFICATION:** Class 8 (9.2) UN: 1791 PG: III

**DOT PROPER SHIPPING NAME:** Hypochlorite solutions

**OTHER DOT INFORMATION:** N/A

**WHMIS CLASSIFICATION:** C, E, F

**OTHER REGULATORY REQUIREMENT:** none

Section X: PRECAUTIONS: HANDLING, STORAGE, AND USAGE

Store in cool, dry place away from acids. Do not store in metal containers. Use in well-ventilated area.