HYDROGEN CHLORIDE (HCl)

Toxicity: This material is a gas under normal conditions and is very toxic. The M.A.C. is 5-10 ppm and a concentration of 1500-2000 ppm would be fatal to humans in a few minutes.

Fire Hazard: There is no fire hazard under normal conditions, but wet gas reacts with some metals to form hazardous hydrogen.

Other Hazards: This material is hazardous to teeth, skin, eyes, and mucous membranes.

Treatment and Antidotes: Wash profusely with water, if injested, eat chalk, magnesium hydroxide, egg whites, and milk, and also administer oxygen. Call a physician.

Storage and Handling: This material should be stored in a cool, well ventilated area away from oxidizing agents. This material can be stored in rubber lined, glass, or tantalum vessels. People handling this material should wear suitable clothing like rubber aprons, shoes, and gloves. Also rubber goggles or chemical safe grades and approved pack or canister gas masks.

Shipping: Shipping containers must have a white warning label and a non-flammable label. Ship in appropriate containers such as rail car or carboy.

CHLORINE (Cl_2)

Toxicity: This material is a gas under normal conditions and is very toxic. The M.A.C. is .35 to 2 ppm. A concentration of 1000 ppm would be rapidly fatal. Least concentration with detectable odor is 3.5 ppm.

Fire Hazard: There is no fire hazard under normal conditions, but there is an explosion hazard if chlorine is mixed with a strong reducing agent such as hydrogen or hydrocarbons at high temperature.

Other Hazards: This material causes eye, skin, and mucous membrane irritation.

Treatment and Antidotes: The patient should be given oxygen immediately and treated for shock. Call a physician.

Storage and Handling: This material should be stored in a ventilated and cool place away from fire hazards. When handling, wear a gas mask or approved respirator, clothing and rubber or chemical safe goggles. In strong chlorine concentrations, wear canister gas masks, Scott air pack, or oxygen breathing apparatus.

Shipping: The shipping containers must have a green gas label and a non-flammable label on. Ship in steel cars or cylinders.

STLCOPCB4039397

AROCLORS, PYRANOLS, AND PYDRAULS

Toxicity: This material is a liquid under normal conditions and has a medium toxicity range for liquid injestion and a high toxicity for vapor inhalation. The maximum allowable concentration (M.A.C.) is 1 mg/cubic meter.

Fire Hazard: There is no fire hazard under normal conditions but will burn and explode at high temperatures when exposed to flames.

Other Hazards: This material can cause dermatitis, systemic poisoning from the fumes, and yellow atrophy of the liver. There are skin, mucous membranes and eye hazards encountered in handling this material.

Treatment and Antidotes: Call a physician and remove patient from fumes.

Storage and Handling: Protect the skin, lungs, and eyes by wearing approved protective clothing, respirator, and goggles. People who handle this material at elevated temperatures should have medical supervision, and the air should be sampled to insure compliance with M.A.C. There are no special storage restrictions under normal conditions except store in a ventilated area.

Shipping: There are no special shipping restrictions.

FERRIC CHLORIDE ($FeCl_3$)

Toxicity: This material is a solid under normal conditions and is non-toxic or has a rating as low.

Fire Hazard: There is no fire hazard under normal conditions, but it will emit toxic fumes at high temperatures.

Other Hazards: Some people are allergic to this material and may develop skin rash, and there is an eye hazard.

Treatment and Antidotes: Call a physician.

Storage and Handling: Protect the skin with approved protective clothing, avoid the breathing of $FeCl_3$ dust, wear approved respirator with adequate cartridge, and protect the eyes with approved goggles. There are no storage regulations.

Shipping: There are no shipping restrictions.

DSW 147788

STLCOPCB4039398

XYLENE ($C_6H_4(CH_3)_2$

Toxicity: This material is a liquid under normal conditions and is very toxic in liquid or gaseous form, but it is less toxic than toluene. The M.A.C. is 200 ppm.

Fire Hazard: This material is very flammable and the limiting explosive concentration is 1-5.3% by volume in air. It will also react with oxidizing agents.

Other Hazards: This material will cause necrosis if enough is inhaled, and is hazardous to eyes, mucous membranes, and the skin.

Treatment and Antidotes: Get patient to fresh air, and call a physician. If injested, get patient to vomit. Wash eyes and skin with water.

Storage and Handling: This material should be stored in a cool well-ventilated area away from fire hazards or strong oxidizing agents. The material for storage can be steel cars or tanks. Wear approved protective clothing, respirator, and goggles.

Shipping: Ship in containers of steel or appropriate material with a red label.

TRICHLOROBENZENE:

Toxicity: This material is a solid at room temperature and the vapors are quite toxic. The solid is poison if injested. The M.A.C. is 50 ppm.

Fire Hazard: This solid is flammable but is listed only as a moderate fire hazard. Will burn at 420°C. or above.

Other Hazards: This material will affect the liver, eyes, and mucous membranes.

Treatment and Antidotes: Wash eyes with water, and get patient to fresh air. Call a physician.

Storage and Handling: Store this material in cool, well-ventilated area away from hazards and oxidizing agents. Wear protective clothing, chemical safe goggles and approved respirator.

Shipping: Ship in steel containers like cars or tanks with red label.

STLCOPCB4039399

TETRA-TRI-CHLOROBENZENE

Toxicity: This material is a solid at normal temperatures and is medium toxic. The M.A.C. of vapor is 50-75 ppm.

Fire Hazard: This material is not a very great fire hazard, but it will burn at high temperatures and will decompose and emit chlorine.

Other Hazards: This material will affect the eyes, skin, and mucous membranes.

Treatment and Handling: Wash eyes and skin with water and get patient to fresh air. Call a physician.

Storage and Handling: Store this material in a cool place away from fire hazards and strong oxidizing agents. This material can be stored in steel cars, tanks, or etc. Wear protective clothing, approved respirator, and chemical safe goggles when handling this material.

Shipping: Ship this material in containers marked with a red label.

LIME $Ca(OH)_2$

Toxicity: Lime is not dangerously toxic, and it is regarded as more of a nuisance. This material is a solid or slurry.

Fire Hazard: This material is not flammable.

Other Hazards: Lime is very hazardous to the eyes. It will burn the skin also, and the dust will affect the mucous membranes.

Treatment and Antidotes: Flood eyes and skin with large quantities of water. If lime is injested, get patient to vomit and call physician.

Storage and Handling: Lime can be stored in steel containers, and people should wear protective clothing, respirators, and rubber or chemical safe goggles when handling lime.

Shipping: There are no special restrictions for shipping, but the containers should have a white label, a caustic warning.

DSW 147790

STLCOPCB4039400

TOLUENE ($C_6H_5CH_3$)

Toxicity: Toluene is a liquid at normal temperatures and is very toxic if the vapors are inhaled, or if the liquid is injested. The M.A.C. is 200 ppm. Toluene is more toxic than benzene.

Fire Hazard: Toluene is very flammable and has explosive limits of 1.3-6.8% by volume in air at 40°F. Toluene will react vigorously with oxidizing agents.

Other Hazards: Toluene can cause corneal burns and extensive necrosis. It is hazardous to the mucous membranes and some people develop skin allergies to toluene. It will cause headache, dizziness, and anemia.

Treatment and Antidotes: Get patient to fresh air and call a physician.

Storage and Handling: Toluene can be stored in steel containers in cool, well-ventilated areas free from fire hazards and oxidizing agents. In handling toluene wear proper clothing, approved respirator, and rubber or chemical safe goggles.

Shipping: Toluene can be shipped in cars or other containers marked with a red label.

DIPHENYL ($C_6H_5C_6H_5$)

Toxicity: This material is a solid at normal conditions and is medium toxic. The M.A.C. of vapor is 2 mg/cubic meter of air. If injested, the lethal dose is 2.4 g/Kg of body weight. The fumes are not dangerously deadly, but they are poisonous over a prolonged time.

Fire Hazard: Diphenyl is very flammable and will burn when exposed to heat or flame or oxidizing materials.

Other Hazards: Diphenyl is not too corrosive to skin, but it will affect the eyes.

Treatment and Antidotes: Wash eyes with water and get the patient to fresh air. Try to get patient to vomit, and call a physician.

Storage and Handling: This material can be stored in steel containers away from fire hazards and oxidizing agents. Wear suitable clothes and approved goggles when handling diphenyl.

Shipping: Ship in cars or other suitable containers with a red warning label of flammability.

DSW 147791

STLCOPCB4039401

BUTYL ACETATE:

Toxicity: This material is mildly toxic, and it is a liquid at normal temperatures. The M.A.C. in air is 200-500 ppm. It usually will not cause death, but will cause necrosis. A person can tolerate 3300 ppm for a few hours or 7000 ppm for 1 hour.

Fire Hazard: It is a very flammable liquid and has explosive limits of 1.7-15% by volume in air.

Other Hazards: This material is hazardous to eyes, mucous linings, and to the skin for some people.

Treatment and Antidotes: Wash the eyes and skin with water. Get the patient to fresh air and call a physician.

Storage and Handling: This material should be stored away from fire hazards and oxidizing agents in steel or other suitable containers. When handling this material, wear suitable clothing, approved respirator, and rubber or chemical safe goggles.

Shipping: Shipping containers can be cars or other vessels marked with red label.

ATTAPULGUS EARTH:

Toxicity: This earth is not toxic in general.

Fire Hazard: There is no fire hazard.

Other Hazards: Attapulgus earth can create a dust hazard similar to other dusts that contain silica.

Treatment and Antidotes: Consult a physician.

Storage and Handling: Attapulgus earth presents no special storage problem and should be handled by persons wearning an approved respirator.

Shipping: There is no special restrictions on shipping.

DSW 147792

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