

Excerpt from CrO₃ MSDS



SECTION 1. ----- CHEMICAL IDENTIFICATION -----

CATALOG #: 27083
NAME: CHROMIUM(VI) OXIDE

SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

CAS #: 1333-82-0
MF: CRO3
EC NO: 215-607-8

SYNONYMS

ANHYDRIDE CHROMIQUE (FRENCH) * ANIDRIDE CROMICA (ITALIAN) * CHROME (TRIOXYDE DE) (FRENCH) * CHROMIA * CHROMIC ACID * CHROMIC ACID, SOLUTION (UN1755) (DOT) * CHROMIC ACID, SOLID (NA1463) (DOT) * CHROMIC ANHYDRIDE * CHROMIC TRIOXIDE * CHROMIC(VI) ACID * CHROMIUM OXIDE * CHROMIUM TRIOXIDE * CHROMIUM(6+) TRIOXIDE * CHROMIUM TRIOXIDE, ANHYDROUS (UN1463) (DOT) * CHROMIUM(VI) OXIDE * CHROMSAEUREANHYDRID (GERMAN) * CHROMTRIOXID (GERMAN) * CHROOMTRIOXYDE (DUTCH) * CHROOMZUURANHYDRIDE (DUTCH) * CROMO(TRIOSSIDO DI) (ITALIAN) * MONOCHROMIUM OXIDE * MONOCHROMIUM TRIOXIDE * NA1463 (DOT) * PURATRONIC CHROMIUM TRIOXIDE * UN1463 (DOT) * UN1755 (DOT) *

Excerpt from CrO₃ MSDS



SECTION 3. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

OXIDIZING
HIGHLY TOXIC (USA)
TOXIC (EU)
MAY CAUSE CANCER.
MAY CAUSE HERITABLE GENETIC DAMAGE.
CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE FIRE.
TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
CAUSES BURNS.
SENSITIZER.
READILY ABSORBED THROUGH SKIN.
TARGET ORGAN(S): LUNGS, KIDNEYS
KEEP AWAY FROM COMBUSTIBLE MATERIAL.
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.
DO NOT BREATHE DUST.

Excerpt from Pyridine MSDS



SECTION 1. ----- CHEMICAL IDENTIFICATION -----

CATALOG #: 82703
NAME: PYRIDINE

SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

CAS #: 110-86-1
EC NO: 203-809-9

SYNONYMS

AZABENZENE * AZINE * NCI-C55301 * PIRIDINA (ITALIAN) * PIRYDYNA (POLISH) * PYRIDIN (GERMAN) * PYRIDINE (ACGIH:DOT:OSHA) * RCRA WASTE NUMBER U196 * UN1282 (DOT) *

Excerpt from Pyridine MSDS



SECTION 3. ----- HAZARDS IDENTIFICATION -----
LABEL PRECAUTIONARY STATEMENTS

FLAMMABLE (USA)

HIGHLY FLAMMABLE (EU)

TOXIC (USA)

HARMFUL (EU)

HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.

POSSIBLE RISK OF IRREVERSIBLE EFFECTS.

POSSIBLE MUTAGEN.

CAUSES SEVERE IRRITATION.

TARGET ORGAN(S): LIVER, KIDNEYS

UNPLEASANT ODOR.

KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

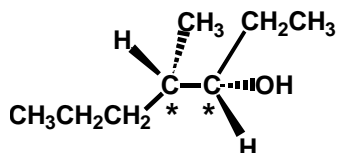
WEAR SUITABLE PROTECTIVE CLOTHING.

DO NOT BREATHE VAPOR.

Jasmine

- Morocco is the world's largest jasmine growing area.
- A flower picker can pick about 15,000 blossoms a day and this will give 1.5 grams of jasmine oil.
- Jasmine oil contains over 200 different chemicals but the most important are cis-jasmone and methyl cis-jasmonate.
- Jasmine oil costs over \$5,000 per kilogram

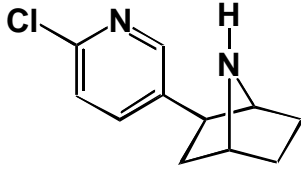
Insect Pheromones



- Aggregation pheromone of the smaller European Beetle which is a carrier of Dutch Elm Disease
- Two chiral carbons (2^n stereoisomers, 4)
- Only one enantiomer is active as a pheromone
- Secondary hydroxyl

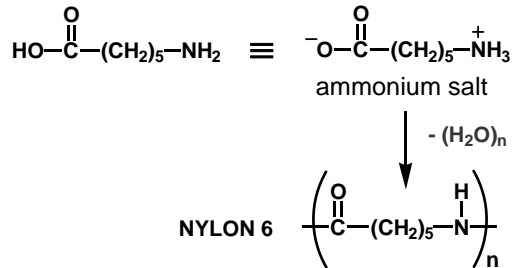
Epibatidine

- Isolated in 1992 from an Ecuadorean frog
- 200 times more potent than morphine in pain relief



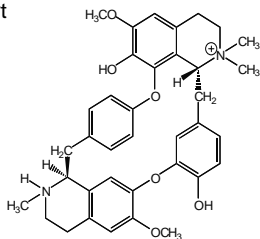
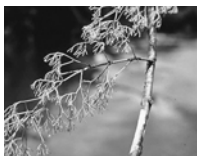
Polyamide formation

- Nylon 6 is also an industrially important polyamide in Europe and Japan
- The monomer contains the carboxylic acid and the amine



Nicotinic cholinergic receptor

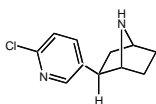
- Active constituent of curare (poison arrows South American indians) is tubocurarine
- Both nitrogens are involved in the binding
- N atoms are 1.4 nm apart



Curarea toxicofera (Wedd.) Barneby & Krukoff

Epibatidine

- In 1974 John Daly and coworkers at the National Institute of Health collected poison frogs in the Pacific highlands of Ecuador
- Extracted small, alkaloid containing samples from the skin of *Epibedobates tricolor*



epibatidine
