Chemical Name: ACOH

Chemical Name: NTOH

OSHA - Final PELs:

Various Methylpentanes:
- None listed

Methylcyclopentane:
- None listed

Hexane:
- 50 ppm TWA; 160 mg/m³ TWA
- 500 ppm TWA; 1800 mg/m³ TWA

OSHA Vacated PELs:

Various Methylpentanes:
- Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Methylcyclopentane:
- Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Hexane:
- Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Personal Protective Equipment:

Eyes:
- Wear appropriate protective eyeglasses or chemical safety goggles as specified by OSHA's eye and face protection regulations in 29 CFR 1910.134 or European Standard EN 166.

Skin:
- Wear appropriate protective gloves to prevent skin exposure.

Clothing:
- Wear appropriate protective clothing to prevent skin exposure.

Respirators:
- A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed. If the workplace conditions warrant, a respirator use is necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State:
- Liquid

Appearance:
- Clear, colorless

Boiling Point:
- 48.8 C

Vapor Density:
- 2.97 (Air = 1)

Flash Point:
- 69 deg C

Autoignition Temperature:
- 225 deg C (147.00 deg F)

NTP Rating:
- Not published.

Decomposition Temperature:
- 77.7 C

Solubility:
- Insoluble

Specific Gravity/Density:
- 0.6600

Molecular Formula:
- C6H12

Molecular Weight:
- 88.18

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:
- Stable under normal temperatures and pressures.
- Incompatible with oxidizers, peroxides.

Incompatibility with Other Materials:
- Strong oxidizers, strong acids, chlorates, fluo-ride, hydrazines, liquid chlorine, peroxides, oxygen, caustics (e.g., ammonium, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide), nitrogen tetraoxide, magnesium, sulfur.

Hazardous Decomposition Products:
- Carbon oxides, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization:
- Will not occur.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTCS:
- CAS# 0-00-0 unlabeled.
- CAS# 6-37-7: 0.944.
- CAS# 110-54-3: MW 2750000
- LD50/LC50: Not available.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Toxicity:
- Aquatic: LC50(96HR): Rainbow Trout = 4.14 mg/L; Flow-through Bioassay LC50(96HR): Fathead Minnows = 5.10 mg/L LC50(96HR): Bluegill = 4.12 mg/L LC50 (48HR): Water Flea = 3.87 mg/L

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations.

US DOT:
- Shipping Name: HXENES
- UN Number: UN1208
- Packing Group: II

Canadian Pictograms:
- Shipping Name: HXENES
- UN Number: UN1208

Other Information: FLASHPOINT = 22C

**** SECTION 14 - TRANSPORT INFORMATION ****

US FEDERAL:
- TSCA:
  - CAS# 0-00-0 is not listed on the TSCA inventory.
  - It is needed for research and development only.
  - CAS# 96-37-7 is listed on the TSCA inventory.

Health & Safety Reporting List:
- Effective Date: June 20, 1985; Sunset Date: November 9, 1993

Chemical Test Rules:
- None of the chemicals in this product are under a Chemical Test Rule.

SARA:
- Section 302 (QO): None of the chemicals in this product are hazardous under SARA.
- Section 303 (QO): None of the chemicals in this product are hazardous under SARA.

Clean Air Act:
- CAS# 110-54-3 is listed as a hazardous air pollutant (HAP).

Clean Water Act:
- None of the chemicals in this product are listed as hazardous substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE:
Various Methyloctanes is not present on state lists from CA, PA, NH, MA, FL, or NY.
Methyloctanes can be found on the following state right to know lists: New Jersey, Florida, Pennsylvania, Massachusetts.
Besane can be found on the following state right to know lists: New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations:
European Labelling in Accordance with R2 Directives
- Risk Symbols: XN P
- Risk Phrases: R11 Highly flammable.
- Safety Phrases: S9 Keep container in a well-ventilated place.
- Safety Phrases: S16 Keep away from sources of ignition - No smoking.
- Safety Phrases: S24/25 Avoid contact with skin and eyes.
- Safety Phrases: S29 Do not empty into drains.
- Safety Phrases: S51 Use only in well ventilated areas.

W5K (Water Danger/Protection):
CAS#: 0-60-0: No information available.
CAS#: 96-37-7: 1

United Kingdom Occupational Exposure Limits
CAS#: 110-54-3: OES-United Kingdom, TWA 20 ppm TWA; 72 mg/m³ TWA

Canada
CAS#: 96-37-7 is listed on Canada’s DGL/NDSL List.
CAS#: 110-54-3 is listed on Canada’s DGL/NDSL List.
This product has a WHMIS classification of B2, D2A.
CAS#: 0-60-0 is not listed on Canada’s Ingredient Disclosure List.
CAS#: 96-37-7 is not listed on Canada’s Ingredient Disclosure List.
CAS#: 110-54-3 is not listed on Canada’s Ingredient Disclosure List.

Exposure Limits
CAS#: 110-54-3: OAS-AUSTRALIA: TWA 50 ppm (180 mg/m³)
OEL-BELGIUM: TWA 50 ppm (176 mg/m³)
OEL-GERMANY: TWA 50 ppm (180 mg/m³)
OEL-FRANCE: TWA 50 ppm (170 mg/m³)
OEL-FINLAND: TWA 50 ppm (180 mg/m³)
STEL 150 ppm (530 mg/m³)
OEL-NETHERLANDS: TWA 50 ppm (180 mg/m³)
OEL-POLAND: TWA 50 ppm (180 mg/m³)
STEL 300 mg/m³; Skin
OEL-JAPAN: TWA 40 ppm (140 mg/m³); Skin
OEL-NORTH AMERICA: TWA 25 ppm (80 mg/m³)
OEL-THE PHILIPPINES: TWA 500 ppm (1800 mg/m³) JANG
OEL-POLAND: TWA 400 mg/m³
OEL-RUSSIA: TWA 40 ppm; STEL 300 mg/m³
OEL-UNITED KINGDOM: TWA 50 ppm (180 mg/m³); STEL 100 ppm (360 mg/m³)
OEL-TURKEY: TWA 5 ppm (1800 mg/m³)
OEL-UNITED KINGDOM: TWA 100 ppm (360 mg/m³); STEL 125 ppm
OEL IN HUNGARY, COLOMBIA, JORDAN, KOREA check ACGIHL
OEL IN HUNGARY, COLOMBIA, JORDAN, KOREA check ACGIH TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 6/03/1999 Revision #1 Date: 4/30/2000

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for any lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages,