



Mid-Continent Division

Section 1: Product and Company Identification
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Product Name:	CLEAN 3960	HMIS:	3-3-0-C-
Function:			
Distributor:	Kel-Tech, A Clariant Company		
Physical Address:	801 Marshall Rd. Clinton, OK 73601	Mailing Address:	P.O. Box 849 Clinton, OK 73601
Phone Number:	(580) 323-8136	Fax Number:	(580) 323-8485
Prepared By:	Kel-Tech, Inc.	Date of Revision:	Tuesday, September 20, 2016

24-Hour emergency Phone Number: (800) 424-9300 (CHEMTREC)
Use only for spills and releases.

Section 2: Hazards Identification
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Classification of the substance or mixture**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

HIGHLY FLAMMABLE LIQUID AND VAPOR - CATAGORY 2
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - CATAGORY 1
CAUSES SERIOUS EYE DAMAGE - CATAGORY 1
MAY CAUSE GENETIC DEFECTS - CATAGORY 1
SUSPECTED OF CAUSING CANCER - CATAGORY 2
MAY DAMAGE FERTILITY OR THE UNBORN CHILD - CATAGORY 1
TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS - CATAGORY 2

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram(s):

**Signal Word: DANGER**

Hazard statement(s)

HIGHLY FLAMMABLE LIQUID AND VAPOR
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS
CAUSES SKIN IRRITATION
CAUSES SERIOUS EYE DAMAGE
MAY BE HARMFUL IF INHALED
MAY CAUSE GENETIC DEFECTS
SUSPECTED OF CAUSING CANCER
MAY DAMAGE FERTILITY OR THE UNBORN CHILD
TOXIC TO AQUATIC LIFE
TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS

Precautionary statement(s)

Ground/bond container and receiving equipment.
Use explosion-proof equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/protective clothing/eye protection/face protection.
Dispose of contents/container in accordance with local/regional regulation.
Store locked up.



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Wash thoroughly after handling.
 Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Use personal protective equipment as required.
 Avoid release to the environment.
 Collect spillage.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting.
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF exposed or concerned: Get medical advice/attention.
 If skin irritation occurs: Get medical advice/attention.
 In case of fire: Use agents approved for Class B hazards (i.e. water fog, foam, dry chemical, carbon dioxide) for extinction.
 Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Section 3: Hazardous Ingredients

Component	CAS#	WGT%	OTHER
Methanol	67-56-1	<55	RQ 5000
Naphtha, petroleum, heavy catalytic reformed	64741-68-0	<20	
2-Ethyl Hexanol	104-76-7	<5	
Isopropanol	67-63-0	<5	
Naphthalene	91-20-3	<5	RQ 100

Section 4: First Aid Measures

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids apart to ensure flushing of entire surface. Get immediate medical attention.
Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing, including shoes. Thoroughly clean clothing and shoes before reuse. Get medical attention.
Inhalation: Remove to fresh air. Give artificial respiration if not breathing. Give oxygen if breathing is difficult. Keep victim warm and Get immediate medical attention.
Ingestion: If swallowed, do **not** induce vomiting. Keep victims head below knee level to prevent vomit from aspiration into lungs. Get immediate medical attention. **NOTE:** Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN:

For Methanol: Western Journal of Medicine, March 1985, page 337 reports that when plasma methanol concentrations are higher than 20 mg/deciliter, when ingested doses are greater than 30 milliliters, and when there is evidence of acidosis or visual abnormalities, a 10% solution of ethanol in 5% aqueous dextrose, administered intravenously, is a safe and effective antidote.

Section 5: Fire Fighting Measures

Extinguishing Media: Agents approved for Class B hazards, (i.e. water fog, foam, dry chemical, and carbon dioxide).
Special Fire Fighting Procedures: Do not enter confined space without full bunker gear and self-contained breathing apparatus. Treat as Class B oil fire. Keep sealed containers cool with water spray.
Unusual Fire and Explosion Hazards: Flammable liquid. Vapor may explode if ignited in enclosed area. Containers may explode from internal pressure if confined to fire. Cool with water.



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Section 6: Accidental Release Measures

Steps to be taken in case material is released or spilled: Responders should wear PPE. Evacuate all unnecessary personnel from area. Remove or shut off all sources of ignition. Increase ventilation if possible. Stop leak if possible. Spilled material should be contained and removed by mechanical means, such as, absorbing with inert material and placing it in a properly labeled waste receptacle. Do not let run off water go to lakes, streams, etc.

Section 7: Handling and Storage

Precautions to be taken in handling and storing: Use appropriate PPE as outlined in Section VIII. Keep away from ignition sources (e.g., heat, sparks, flames, etc.). Keep container closed. Ground and bond containers when transferring liquids. Use with adequate ventilation. Do not breathe vapors. Do not cut, puncture, or weld on or near this container.

Conditions for safe storage, including and incompatibilities: Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage and moisture. Separate from incompatibles, combustibles, organic or other readily oxidizable materials. Containers of this material may be hazardous when empty since they retain product residues (liquid, vapors); observe all warnings and precautions listed for the product. Do not cut, puncture, or weld on or near this container.

Section 8: Exposure Controls / Personal Protective Measures

Table with 4 columns: Component, List, Type, Value. Rows include 1,2,4-Trimethylbenzene, Isopropanol, Methanol, and Naphthalene with their respective exposure limits and types.

Respiratory Protection: Use OSHA/NIOSH/MSHA approved air supplied respirator for organic vapors. Entry into confined space requires self-contained positive breathing apparatus.

Ventilation: Local Exhaust: Yes, equal to fresh air; Mechanical Exhaust: Exhaust fan recommended to control exposure levels; Special: Control airborne concentrations below exposure guidelines.

Personal Protective Equipment: Chemical resistant gloves (polyvinyl alcohol or Buna-N), chemical splash goggles, chemical resistant footwear, and chemical resistant aprons are recommended when handling the product.

Other Protective Equipment: Eye wash and safety showers should be readily available

Work and Hygienic Practices: Avoid breathing chemicals, wash hands before eating, drinking or smoking

Section 9: Physical and Chemical Properties

Table with 2 columns: Property Name, Value. Rows include Appearance/Odor, State, Specific Gravity, Boiling Point, Flash Point, UEL, LEL, Auto-ignition Temperature, Decomposition Temperature, pH, Solubility in Water, Pour Point, Viscosity, Vapor Pressure, Evaporation Rate, Vapor Density, and n-Octanol/Water.



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Section 10: Stability and Reactivity

Chemical Stability:	This product is stable in closed containers at room temperature.
Conditions to Avoid:	Air exposure and excessive heat.
Incompatible Materials:	Strong acids, bases, strong oxidizers, flame, heat
Decomposition Products:	Thermal Decomposition: Carbon dioxide, Carbon monoxide, smoke and oxides of nitrogen.
Hazardous Polymerization:	Will not occur

Section 11: Toxicological Information

No specific toxicity tests have been conducted on this product. Components have shown to be toxic.

1,2,4-TRIMETHYLBENZENE - Moderately toxic by intraperitoneal route. Mildly toxic by inhalation. Can cause central nervous system depression, anemia, bronchitis.

TOXICITY DATA:

Oral-Rat, adult male, LD50: 5 g/kg **Inhalation-Rat, adult male**, LC50: 18 g/m³/4H **Intraperitoneal-Rat, adult male**, LDLo: 1752 mg/kg **Intraperitoneal-Guinea Pig, adult**, LDLo: 1788 mg/kg

2-ETHYL HEXANOL - Moderately toxic by ingestion, skin contact, intraperitoneal, subcutaneous, and parenteral routes. An experimental teratogen. Other experimental reproductive effects. A severe eye and moderate skin irritant. Mutation data reported.

TOXICITY DATA:

Skin-Rabbit, adult, 415 mg open Mild irritation effects **Skin-Rabbit, adult**, 500 mg/24H Moderate irritation effects **Eyes-Rabbit, adult**, 4165 µg Severe irritation effects **Eyes-Rabbit, adult**, 20 mg/24H Moderate irritation effects **Mutation in Microorganisms-Salmonella typhimurium**, 500 µmol/L **Oral-Mouse**, TDLo: 12 g/kg (female 7-14D post): Reproductive effects **Oral-Mouse**, TDLo: 12,200 mg/kg (female 6-13D post): Reproductive effects **Oral-Rat, adult male**, TDLo: 1628 mg/kg (female 12D post): Teratogenic effects **Oral-Rat, adult male**, LD50: 2049 mg/kg **Intraperitoneal-Rat, adult male**, LD50: 500 mg/kg **Subcutaneous-Rat, adult male**, LD50: 650 mg/kg **Parenteral-Rat, adult male**, LD50: 4600 mg/kg **Oral-Mouse**, LD50: 2500 mg/kg **Intraperitoneal-Mouse**, LD50: 759 mg/kg **Parenteral-Mouse**, LD50: 1670 mg/kg **Oral-Rabbit, adult**, LD50: 1180 mg/kg **Skin-Rabbit, adult**, LD50: 1970 mg/kg **Oral-Guinea Pig, adult**, LD50: 1860 mg/kg

ISOPROPANOL - Moderately toxic to humans by an unspecified route. Moderately toxic experimentally by intravenous and intraperitoneal routes. Mildly toxic by skin contact. Human systemic effects by ingestion or inhalation: flushing, pulse rate decrease, blood pressure lowering, anesthesia, narcosis, headache, dizziness, mental depression, hallucinations, distorted perceptions, dyspnea, respiratory depression, nausea or vomiting, coma. Experimental teratogenic and reproductive effects. Mutation data reported. An eye and skin irritant. Questionable carcinogen.

The single lethal dose for a human adult is about 250 mL, although as little as 100 mL can be fatal. It can cause corneal burns and eye damage. Acts as a local respiratory irritant and in high concentration as a narcotic. It has good warning properties because it causes a mild irritation of the eyes, nose, and throat at a concentration level of 400 ppm. It may induce a mild narcosis, the effects of which are usually transient, and it is somewhat less toxic than the normal isomer, but twice as volatile.

There is some evidence that humans can acquire a slight tolerance to this material. It is absorbed by the skin, but single or repeated applications on the skin of rats, rabbits, dogs, or human beings induced no untoward effects. It acts very much like ethanol in regard to absorption, metabolism, and elimination but with a stronger narcotic action. Chronic injuries have been detected in animals. Workers producing isopropanol show an excess of sinus and laryngeal cancers. This may be caused, completely or in part, by the by-product, isopropyl oil. Humans have ingested up to 20 mL diluted with water and noticed only a sensation of heat and slight lowering of the blood pressure. There are, however, reports of serious illness from as little as 10 mL taken internally. A common air contaminant.

TOXICITY DATA:

Skin-Rabbit, adult, 500 mg Mild irritation effects **Eyes-Rabbit, adult**, 16 mg **Eyes-Rabbit, adult**, 10 mg Moderate irritation effects **Cytogenetic Analysis-Saccharomyces cerevisiae**, 200 mmol/tube **Cytogenetic Analysis-Rat, adult male: Inhalation**, 1030 µg/m³/16 W-I **Oral-Rat, adult male**, TDLo: 6480 mg/kg (male 26 W pre): Reproductive effects **Inhalation-Rat, adult male**, TCLo: 10,000 ppm/7H (female 1-19D post): Teratogenic effects **Inhalation-Rat, adult male**, TCLo: 3500 ppm/7H (female 1-19D post): Teratogenic effects **Oral-Rat, adult male**, TDLo: 5040 mg/kg (female 1-20D post): Reproductive effects **Inhalation-Rat, adult male**, TCLo: 10,000 ppm/7H (female 1-19D post): Reproductive effects **Oral-Rat, adult male**, TDLo: 11,340 mg/kg (45D pre): Reproductive effects **Inhalation-Rat, adult male**, TCLo: 7000 ppm/7H (female 1-19D post): Teratogenic effects **Oral-Man**, TDLo: 14,432 mg/kg: Central nervous system effects, Cardiovascular effects, Pulmonary system effects **Oral-Human**, TDLo: 223 mg/kg: Central nervous system effects, Cardiovascular effects **Oral-Man**, LDLo: 5272 mg/kg **Oral-Human**, LDLo: 3570 mg/kg: Central nervous system effects, Pulmonary system effects, Gastrointestinal tract eff **Unreported-Man**, LDLo: 2770 mg/kg **Oral-Rat, adult male**, LD50: 5045 mg/kg **Inhalation-Rat, adult male**, LCLo: 16,000 ppm/4H **Intraperitoneal-Rat, adult male**, LD50: 2735 mg/kg **Intravenous-Rat, adult male**, LD50: 1099 mg/kg **Oral-Mouse**, LD50: 3600 mg/kg **Inhalation-Mouse**, LCLo: 12,800 ppm/3H **Intraperitoneal-Mouse**, LD50: 4477 mg/kg **Subcutaneous-Mouse**, LDLo: 6000 mg/kg **Intravenous-Mouse**, LD50: 1509 mg/kg **Oral-Dog, adult**, LD50: 4797 mg/kg **Intravenous-Dog, adult**, LDLo: 5120 mg/kg **Intravenous-Cat, adult**, LDLo: 1963 mg/kg **Oral-Rabbit, adult**, LD50: 6410 mg/kg **Skin-Rabbit, adult**, LD50: 12,800 mg/kg



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METHANOL - A human poison by ingestion. Poison experimentally by skin contact. Moderately toxic experimentally by intravenous and intraperitoneal routes. Mildly toxic by inhalation. Human systemic effects: changes in circulation, cough, C46:C47dyspnea, headache, lachrymation, nausea or vomiting, optic nerve neuropathy, respiratory effects, visual field changes. An experimental teratogen. Experimental reproductive effects. An eye and skin irritant. Human mutation data reported. A narcotic. | Its main toxic effect is exerted upon the nervous system, particularly the optic nerves and possibly the retinae. The condition can progress to permanent blindness. Once absorbed, methanol is only very slowly eliminated. Coma resulting from massive exposures may last as long as 2–4 days. In the body, the products formed by its oxidation are formaldehyde and formic acid, both of which are toxic. Because of the slow elimination, methanol should be regarded as a cumulative poison. Though single exposures to fumes may cause no harmful effect, daily exposure may result in the accumulation of sufficient methanol in the body to cause illness. Death from ingestion of less than 30 mL has been reported. A common air contaminant.

TOXICITY DATA:

Skin-Rabbit, adult, 20 mg/24H Moderate irritation effects **Eyes-Rabbit, adult**, 100 mg/24H Moderate irritation effects **DNA Inhibition-Human:lymphocyte**, 300 mmol/L **Microsomal Mutagenicity Assay-Mouse:lymphocyte**, 7900 mg/L **Oral-Rat, adult male**, TDLo: 7500 mg/kg (17-19D preg): Reproductive effects **Inhalation-Rat, adult male**, TCLo: 10,000 ppm/7H (7-15D preg): Teratogenic effects **Intraperitoneal-Mouse**, TDLo: 5 g/kg (male 5D pre): Reproductive effects **Inhalation-Rat, adult male**, TCLo: 20,000 ppm/7H (7-15D preg): Teratogenic effects **Oral-Man**, LDLo: 6422 mg/kg: Central nervous system effects, Pulmonary system effects, Gastrointestinal tract effects **Oral-Man**, TDLo: 3429 mg/kg: Eye effects **Oral-Human**, LDLo: 428 mg/kg: Central nervous system effects, Pulmonary system effects **Oral-Human**, LDLo: 143 mg/kg: Eye effects, Pulmonary system effects, Gastrointestinal tract effects **Oral-Woman**, TDLo: 4 g/kg: Eye effects, Pulmonary system effects, Gastrointestinal tract effects **Inhalation-Human**, TCLo: 86,000 mg/m³: Eye effects, Pulmonary system effects **Inhalation-Human**, TCLo: 300 ppm: Eye effects, Central nervous system effects, Pulmonary system effects **Oral-Woman**, TDLo: 4 g/kg **Oral-Rat, adult male**, LD50: 5628 mg/kg **Inhalation-Rat, adult male**, LC50: 64,000 ppm/4H **Intraperitoneal-Rat, adult male**, LD50: 7529 mg/kg **Intravenous-Rat, adult male**, LD50: 2131 mg/kg **Oral-Mouse**, LD50: 7300 mg/kg **Intraperitoneal-Mouse**, LD50: 10,765 mg/kg **Subcutaneous-Mouse**, LD50: 9800 mg/kg **Intravenous-Mouse**, LD50: 4710 mg/kg **Oral-Monkey**, LDLo: 7000 mg/kg **Inhalation-Monkey**, LCLo: 1000 ppm **Skin-Monkey**, LDLo: 393 mg/kg

NAPHTHA, PETROLEUM, HEAVY CATALYTIC REFORMED - Low toxicity by ingestion, inhalation, and skin contact. A severe skin irritant.

TOXICITY DATA:

Skin-Rabbit, adult, 500 mg Severe irritation effects **Oral-Rat, adult male**, LD50: 4800 mg/kg **Inhalation-Rat, adult male**, LC: > 5 g/m³/4H **Skin-Rabbit, adult**, LDLo: 2 g/kg

NAPHTHALENE - Human poison by ingestion. Experimental poison by ingestion, intravenous, and intraperitoneal routes. Moderately toxic by subcutaneous route. An experimental teratogen. Experimental reproductive effects. An eye and skin irritant. Can cause nausea, headache, diaphoresis, hematuria, fever, anemia, liver damage, vomiting, convulsions, and coma. Poisoning may occur by ingestion of large doses, inhalation, or skin absorption. Questionable carcinogen with experimental tumorigenic data.

TOXICITY DATA:

Skin-Rabbit, adult, 495 mg open Mild irritation effects **Eyes-Rabbit, adult**, 100 mg Mild irritation effects **Oral-Mouse**, TDLo: 2400 mg/kg (7-14D preg): Reproductive effects **Intraperitoneal-Rat, adult male**, TDLo: 5925 mg/kg (1-15D preg): Teratogenic effects **Subcutaneous-Rat, adult male**, TDLo: 3500 mg/kg/12 W-I: Equivocal tumorigenic agent **Oral-Child**, LDLo: 100 mg/kg **Unreported-Human**, LDLo: 29 mg/kg **Unreported-Man**, LDLo: 74 mg/kg **Oral-Rat, adult male**, LD50: 490 mg/kg **Oral-Mouse**, LD50: 533 mg/kg **Intraperitoneal-Mouse**, LD50: 150 mg/kg **Subcutaneous-Mouse**, LD50: 969 mg/kg **Intravenous-Mouse**, LD50: 100 mg/kg **Oral-Dog, adult**, LDLo: 400 mg/kg **Oral-Cat, adult**, LDLo: 1000 mg/kg **Oral-Rabbit, adult**, LDLo: 3 g/kg **Oral-Guinea Pig, adult**, LD50: 1200 mg/kg

Section 12: Ecological Information

Ecological testing has not been conducted on this product. Material should be considered hazardous to aquatic life.



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Section 13: Disposal Considerations

Waste Classification: Material should be disposed of by incineration or in an approved landfill in accordance with all federal, state, and local regulations. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the products meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting material hazardous. The container of this product can present physical or health hazards, even when emptied! To avoid risk of injury, do not cut, puncture, or weld on or near this container. Since emptied containers retain product residue, follow label warnings even after container is emptied.

Section 14: Transport Information

Department of Transportation

DOT Identification Number: UN1993
DOT Proper Shipping Name: UN1993, Flammable liquid, n.o.s., (Contains Methanol and Petroleum distillates), 3, PGII
DOT Hazard Class: 3
DOT Identification Name: Flammable liquid, n.o.s.
DOT Packaging Group: PGII
RQ Naphthalene (8,782 lbs or 1,230 gallons)
2012 ERG Number: 128

Section 15: Regulatory Information

CERCLA: If reportable quantity of this product is accidentally spilled the incident is subject to the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act and must be reported to the National Response Center by calling (800) 424-8802.

<u>CERCLA Component</u>	<u>CAS #</u>	<u>WT. %</u>	<u>RQ, lbs</u>	<u>Product RQ Value</u>
Methanol	67-56-1	53.2	5000	9,406 lbs (1,317 gallons)
Naphthalene	91-20-3	1.1	100	8,782 lbs (1,230 gallons)

SARA TITLE III: This product contains the following Extremely Hazardous Substance under EPCRA section 302/304 lists.

<u>EHS Component</u>	<u>CAS #</u>	<u>WT. %</u>	<u>RQ, lbs</u>	<u>TPQ, lbs</u>
None				

Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories:

Immediate (Acute) Health: X Delayed (Chronic) Health: X Fire: X Pressure: reactive:

This product contains the following Section 313 Reportable Ingredients:

<u>313 Component</u>	<u>CAS #</u>	<u>WT. %</u>
Methanol	67-56-1	53.2
Naphthalene	91-20-3	1.1
1,2,4-Trimethylbenzene	95-63-6	0.2

Section 16: Other Information

Hazardous Material Identification System Category Rating:

Health: 3
Flammability: 3
Reactivity: 0
Personal Protection: C

Hazardous Material Identification System Category Rating:

This rating scheme rates health, fire, and reactivity on a scale of 0 to 4.



Safety Data Sheet

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0 = No significant hazard 1 = Slight Hazard 2 = Moderate Hazard 3 = High Hazard 4 = Extreme Hazard

Personal Protective Equipment Guide:

A = Safety Glasses

B = Safety Glasses, Gloves

C = Safety Glasses/Goggles, Gloves, Apron

D = Gloves, Apron, Face shield

E = Safety Glasses, Gloves, Dust Respirator

F = Safety Glasses, Gloves, Apron, Dust Respirator

G = Safety Glasses, Gloves, Vapor Respirator

H = Safety Glasses, Gloves, Apron, Vapor Respirator

I = Safety Glasses, Gloves, Apron, Dust & Vapor Respirator

J = Splash Goggles, Gloves, Apron, Dust & Vapor Respirator

K = Air Line Hood/Mask, Gloves, Full Suit, Boots

X = Ask supervisor for special handling instructions



Component data taken from Sax's Dangerous properties of Industrial Materials, 10th Edition, John Wiley & Sons; Vendor's MSDS Sheets, NIOSH "Pocket Guide to CHEMICAL HAZARDS", U.S. Department of Health and Human Resources, 2007; The Merck Index, 9th Edition, Merck & Co., Inc.; "ACGIH 2004 TLVs and BEIs", American Conference of Governmental Industrial Hygienists; "Quick Selection Guide to CHEMICAL PROTECTIVE CLOTHING", 3RD Edition, John Wiley & Sons, Inc., 1997.

Definitions

ACGIH: American Conference of Governmental & Industrial Hygienists
ANSI: American National Standard Institute
BEI: Biological Exposure Indices - individual tests via urine or exhaled air
CERCLA: Comprehensive Emergency Response, Compensation, and Liability Act
DOT: U.S. Department of Transportation
EPA: U.S. Environmental Protection Agency
HMIS: Hazardous Materials Identification System
IARC: International Agency For Research On Cancer
LC₅₀: Lethal Concentration 50: A calculated concentration of the substance which is expected to cause death in 50% of an entire defined experimental animal population.
LCLo: Lethal Concentration Low: The lowest concentration of a material in air (other than LC₅₀) that has been reported to have caused death in humans or animals.
LD₅₀: Lethal Dose 50: A calculated concentration of the substance which is expected to cause death in 50% of an entire defined experimental animal population.
LDLo: Lethal Dose Low: the lowest dose (other than LD₅₀) of a material introduced by any route, other than inhalation, over any given period of time in one or more divided portions and reported to have caused death in humans or animals.
MSHA: Mine Safety and Health Administration
N/A: Not Applicable
N/D: Not Determined
NE: Not Established
NFPA: National Fire Protective Association
NIOSH: National Institute for Occupational Safety & Health
NSF: National Sanitation Foundation
NTP: National Toxicology Program
OSHA: U.S. Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
PPE: Personal Protective Equipment
RCRA: Resource Conservation and Recovery Act
REL: Recommended Exposure Limit (NIOSH)
RQ: Reportable Quantity
SARA: Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA: Self Contained Breathing Apparatus
STEL: Short Term Exposure Limit
TCLo: Toxic Concentration Low: The lowest concentration of a material in air to which humans or animals have been exposed for any given period of time that has produced any toxic effect in humans or produced a carcinogenic, neoplastigenic, or teratogenic effect in animals or humans.
TLV: Threshold Limit Value: A recommended upper limit or TWA concentration of a substance to which most workers can be exposed without adverse effects.
TSCA: Toxic Substances Control Act
TWA: Time Weighted Average
Wt: Weight
<: Less Than
>: Greater Than

DISCLAIMER OF LIABILITY

The information contained herein relates only to the specific material identified. Danlin Industries Corporation believes that such information is accurate and reliable as of the date of this material safety data sheet. **NO REPRESENTATION, GUARANTEE OR WARRANTY, EXPRESSED OR IMPLIED, IS MADE AS TO THE ACCURACY, RELIABILITY, OR COMPLETENESS OF THE INFORMATION.**

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