Global Chemie ASCC Limited.
www.gcascc.com
CHEMCALL: 0-2324-6888

Safety Data Sheet

1. IDENTIFICATION

Product Name:	**Ethanol 99 %**
Other Name:	Ethyl Alcohol, Ethanol, DEB100
Recommended Use:	Solvent for resin, lacquers, wax, printing ink, adhesives, plastics and polishes agent. Raw material for used in the chemical industry such as paints, rubbers, plastic, cosmetics, pharmaceuticals, and dehydrate agents.
Supplier:	Global Chemie ASCC Limited
Street Address:	88/123 Moo 2 Bangpoo Industrial Estate (North), Phraek Sa Mai, Mueang Samutprakan, Samutprakan 10280
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2. HAZARDS IDENTIFICATION

Hazardous Nature

This product is classified as hazardous under GHS criteria

Hazardous Classification

Flammable Liquid Category 2
Serious eye damage/eye irritation category 2A

Hazardous Statement

Highly Flammable liquid and vapor

GHS Pictograms

Hazard Statements

H225: Highly Flammable liquid and vapor

H319: Causes serious eye irritation

Precautionary Statements

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233: Keep container tightly closed.
P240: Ground/Bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.

Response Statements

P370+P378: In case of fire: Use manufacturer/supplier or the competent authority to specify appropriate media for extinction.

If on skin

P303+P361+P353: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eye

P305+P351+P338: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

Storage Statements

P403+P235: Store in a well-ventilated place. Keep cool.

Disposal Statements

P501: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Signal Word Danger

3. COMPOSITION: Information on Ingredients

Chemical Ingredient	CAS No.	UN No.	Proportion (%v/v)
Ethanol	64-17-5	1170	> 99.5
Denatonium benzoate	3734-33-6	-	< 0.0016
Water	7732-18-5	-	< 10

Molecular Formula: C_2H_6O

Molecular Weight: 46.069 g/mol

Note: The ethanol produced from Bio-based.

4. FIRST AID MEASURES

For advice, contact Ramathibodi Poison Centre (Phone: 1367) or a doctor.

Ingestion

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness, i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

Eye Contact

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Seek medical attention without delay; if pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

Inhalation

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

- Transport to hospital, or doctor.

Indication of any immediate medical attention and special treatment needed

For acute or short-term repeated exposures to ethanol:

- Acute ingestion in non-tolerant patients usually responds to supportive care with special attention to prevention of aspiration, replacement of fluid and correction of nutritional deficiencies (magnesium, thiamine pyridoxine, Vitamins C and K).
- Give 50% dextrose (50-100 ml) IV to bounded patients following blood draw for glucose determination.
- Comatose patients should be treated with initial attention to airway, breathing, circulation and drugs of immediate importance (glucose, thiamine). Decontamination is probably unnecessary more than 1 hour after a single observed ingestion. Cathartics and charcoal may be given but are probably not effective in single ingestions.
- Fructose administration is contra-indicated due to side effects.

5. FIRE FIGHTING MEASURES

Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing firefighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable extinguishing media

- Alcohol stable foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

Special hazards arising from the substrate or mixture

Fire Incompatibility

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Special protective equipment for fire-fighters

Fire Fighting

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).
- Fight fire from a safe distance, with adequate cover.
- If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control the fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- Do not approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

Fire/Explosion Hazard

- Liquid and vapour are highly flammable.
- Severe fire hazard when exposed to heat, flame and/or oxidisers.
- Vapour may travel a considerable distance to source of ignition.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).

Combustion products include:

- carbon dioxide (CO_2)
- Other pyrolysis products typical of burning organic material.
- HAZCHEM .2YE

6. ACCIDENTAL RELEASE MEASURES

Methods and material for containment and cleaning up

Minor Spills

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Wipe up.

Major Spills

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place). No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.

7. HANDLING AND STORAGE

Precautions for safe handling

- Containers, even those that have been emptied, may contain explosive vapours.
- Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- DO NOT allow clothing wet with material to stay in contact with skin.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

Other information

- Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- Keep containers securely sealed.
- Store away from incompatible materials in a cool, dry well-ventilated area.
- Protect containers against physical damage and check regularly for leaks.

Conditions for safe storage

Suitable containers

- Packing as supplied by manufacturer.
- Plastic containers may only be used if approved for flammable liquid.
- Check that containers are clearly labelled and free from leaks.
- For low viscosity materials (i): Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.
- For materials with a viscosity of at least 2,680 cSt. (23 deg. C)
- For manufactured product having a viscosity of at least 250 cSt.

Storage incompatibility

- Avoid oxidising agents, acids, acid chlorides, acid anhydrides, chloroformates.
- Avoid strong bases.

8. EXPOSURE CONTROLS: PERSONAL PROTECTION

Occupational Exposure Limits

Source	Ingredient	Material name	TWA	STEL	Peak	Notes

Australia Exposure Standards	ethanol	Ethyl alcohol	1000 ppm 1880 mg/m3	No data available	No data available	No data available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-I	TEEL-2	TEEL-3
ethanol	Ethyl alcohol; (Ethanol)	No data available	No data available	15,000 ppm

Ingredient	Original IDLH	Revised IDLH
ethanol	3,300 (LELI) ppm	No data available
denatonium benzoate	No data available	No data available
water	No data available	No data available

Exposure controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

- **Skin protection**

  See Hand protection below

- **Eye and Face protection**

Safety glasses with side shields.

Chemical goggles.

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 591, [AS/NZS 1336 or national equivalent]

- **Hands/feet protection**
  - Wear chemical protective gloves, e.g. PVC.
  - Wear safety footwear or safety gumboots, e.g. Rubber
    The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer.
    Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
    The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.
    Personal hygiene is a key element of effective hand care .
- **Body protection**

  See Other protection below

- **Other protection**

  Overalls.

  PVC Apron.

  PVC protective suit may be required if exposure severe.

Eyewash unit.

Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.

For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).

Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot an shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds.

Recommended material(s)

Glove selection is based on a modified presentation of the:"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the computer-generated selection:

Material	CPI
BUTYL	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NITRILE	C
NITRILE+PVC	C
PE/EVAUPE	C
PVA	C
PVC	C
VITON	C

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

Respiratory protection

Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face respirator	Full-Face Respirator	Powered Air Respirator
up to 5 x ES	Air-line	A-2	A-PAPR-2^
up to 10 x ES	-	A-3	-
100+ x ES	-	Air-line**	-

* - Continuous Flow; ** - Continuous-flow or positive pressure demand

^ - Full-face

A (All classes) = Organic vapours.

B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide (HCN), B3 = Acid gas or hydrogen cyanide (HCN).

E = Sulfur dioxide (SO_2)

G = Agricultural chemicals.

K = Ammonia (NH_3) Hg = Mercury NO = Oxides of nitrogen MB = Methyl bromide AX = Low boiling point organic compounds (below 65 deg C).

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

NOTE: As a series of factors will influence the actual performance of the glove, a final

selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of Measurement	Typical Value
Appearance	-	Colorless Liqiud
Odour	-	Alcohol
Odour Threshold	ppm	No data available
pH	-	No data available
Boiling point	°C	78
Melting point	°C	-117
Flash point	°C	11
Flammability	-	Flammable
Autoignition Temperature	°C	422
Decomposition Temperature	°C	No data available
Lower/Upper Flammability Limits	%V	3.4-19
Density @ 20°C	g/cm^3	0.79-0.81
Specific Gravity @ 20°C	-	0.79-0.81
Viscosity @ 20°C	mPa.s	No data available
Vapor pressure	kPa	No data available
Vapor density	kPa (Air = 1)	No data available
Evaporation Rate	(n-Butyl acetate = 1)	No data available
Water Solubility	-	Miscible
Solubility in other solvents Partition coefficient	(n-octanol/water)	Log P_{ow}: -0.31
Coefficient of Thermal Expansion	per Deg C	No data available
Particle Characteristic	-	No data available

The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult the Product Data Sheet.

10. STABILITY AND REACTIVITY

Chemical Stability

Product is considered stable. Hazardous polymerization will not occur.

Conditions to avoid

Avoid open flames, ignition source, electrical equipment and sources of static electricity.

Incompatible Materials

Avoid oxidising agents, acids, acid chlorides, acid anhydrides, chloroformates. Avoid strong bases.

Hazardous reactions

No data available

Chemical Reactivity

Unstable in the presence of incompatible materials.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled

Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.

There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

Animal testing shows that the most common signs of inhalation overdose is inco-ordination and drowsiness.

Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.

Ingestion

Accidental ingestion of the material may be damaging to the health of the individual. Ingestion of ethanol (ethyl alcohol, "alcohol") may produce nausea, vomiting, bleeding from the digestive tract, abdominal pain, and diarrhoea. Effects on the body:

Body concentration	Effects
<1.5 g/l	Mild: impaired vision, co-ordination and reaction time; emotional instability
1.5-3.0 g/l	Moderate: Slurred speech, confusion, inco-ordination, emotional instability, disturbances in perception and senses, possible blackouts, and impaired objective performance in standardized tests. Possible double vision, flushing, fast heart rate, sweating and incontinence. Slow breathing may occur rarely and fast breathing may develop in cases of metabolic acidosis, low blood sugar and low blood potassium.

Toxicological effects:

Ethanol	Irritation
Dermal (rabbit) LD50: 17100 mg/kg	Eye (rabbit): 500 mg SEVERE
Inhalation (rat) LC50: 63926.976 mg/l/4h	Eye (rabbit):100mg/24hr-moderate
Oral (rat) LD50: 7060 mg/kg	Skin (rabbit):20 mg/24hr-moderate
	Skin (rabbit):400 mg (open)-mild
Denatonium benzoate	Irritation
Oral (rat) LD50: 584 mg/kg	No data available
Water	Irritation
No data available	No data available

Denatonium Benzoate

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways

disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.

Most undiluted cationic surfactants satisfy the criteria for classification as Harmful (Xn) with R22 and as Irritant (Xi) for skin and eyes with R38 and R41. For quaternary ammonium compounds (QACs): Quaternary ammonium compounds are synthetically made surfactants. Studies show that its solubility, toxicity and irritation depend on chain length and bond type while effect on histamine depends on concentration. QACs may cause muscle paralysis with no brain involvement. There is a significant association between the development of asthma symptoms and the use of QACs as disinfectant. Somnolence, tremor, ataxia recorded

Water

No significant acute toxicological data identified in literature search.

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation	×	Reproductivity	×
Serious Eye Damage/irritation	✓	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

Legend: ⊗ = Date available but does not fill the criteria for classification

✓ = Date available to make classification

× = Date Not available to make classification

12. ECOLOGICAL INFORMATION

Toxicity

Alcohol, Denatured (Denatured Alcohol Bitrex)

Endpoint:	Test Duration (HR):	Species:
No data available	No data available	No data available

Ethanol

Endpoint:	Test Duration (HR):	Species:
LC50:	96	Fish
EC50:	48	Crustacea
EC50:	96	Algae or other aquatic plants
NOEC	2016	Fish

Denatonium benzoate

Endpoint:	Test Duration (HR):	Species:
No data available	No data available	No data available

Water

Endpoint:	Test Duration (HR):	Species:
No data available	No data available	No data available

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air

ethanol	LOW (Half-life = 2.17 days)	LOW (Half-life = 5.08 days)
water	LOW	LOW

Bio-accumulative potential

Ingredient	Bioaccumulation
ethanol	LOW (Log KOW = -0.31)
water	LOW (Log KOW = -1.38)

Mobility in soil

Ingredient	Mobility
ethanol	HIGH (KOC = 1)
water	LOW (KOC = 14.3)

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Product / packaging disposal

- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers.

14. TRANSPORT INFORMATION

Road and Rail Transport		Marine Transport		Air Transport	
UN. Number	1170	UN. Number	1170	UN. Number	1170
Class/Item	3	Class/Item	3	Class/Item	3
Hazard Symbol	Flammable Liquid	Hazard Symbol	Flammable Liquid	Hazard Symbol	Flammable Liquid
Proper Shipping Name	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Proper Shipping Name	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Proper Shipping Name	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Packing Group	II	Packing Group	II	Packing Group	II
		Marine Pollutant	No		

Transport in bulk according to Annex II of MARPOL and the IBC code

Source	Product name	Pollution Category	Ship Type
IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk	Ethyl alcohol	Z	Not Applicable

15. REGULATORY INFORMATION

Safety, health and environmental regulations I legislation specific for the substance or mixture

ETHANOL (64-17-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

DENATONIUM BENZOATE (3734-33-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

Water (7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

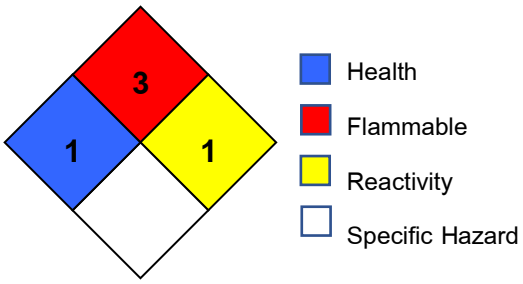
National Inventory	Status
Australia - ACS	Y
Canada - DSL	**Y**
Canada - NDSL	N (ethanol; tertiary butanol; water, denatonium benzoate)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (denatonium benzoate)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y

Legend: Y = All ingredients are on the inventory

N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

16. OTHER INFORMATION

National Fire Protection Association (USA) :



SDS Distribution : The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty of guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.

Prepared By : Quality Control Department / Global Chemie ASCC Limited

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references

Abbreviations:

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit。
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index

References:

- Supplier Material Safety Data Sheets
- http://chem.sis.nlm.nih.gov/chemidplus (October 18)
- http://hsis.ascc.gov.au/SearchHS.aspx (October 18)
- Ecotoxicology data: http://cfpub.epa.gov/ecotox/quick_query.htm (October 18)

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