

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

072068260

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

072067619 072067627 072067635 072067643 072067650 072067668 072068120 072068138 072068146 072068153  
072068161 072068179 072068187 072068195 072068245 072068252 072068278 072068286 072068294 072068302  
072068310 072068369 072068377 072068542 072068559 072068567 072068575 072068583 072068591 072068609  
072068617 072068674 072068682 072068690 072068708 072068716 072068724 072068732 072069102 072069128  
072069136 072069144 072069151 072069169 072069185



MS349603

## NATURE-CRYL HI-20ET - POWDER

### MATERIAL SAFETY DATA SHEET

Page 1 of 2

#### SECTION 1 - SOURCE/IDENTITY/USE INFORMATION

**DISTRIBUTOR**

GC AMERICA INC.  
3737 West 127th St.  
Alsip, Illinois, 60803  
Telephone: 708-597-0900  
Hours: Mon.- Fri. 8:00 am. - 5:00 pm. C.S.T.  
Transportation Emergency No. 800-424-9300

**COMMON NAME:** NATURE-CRYL HI-20ET – POWDER, ALL SHADES**CHEMICAL NAME:** N.A.**PRODUCT USE:** Preparation of denture base (powder component)

*The following information is provided with regard to the toxicity and hazards the pure components present in this product.*

#### SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT	C.A.S.	EXPOSURE LIMITS	LD50/LC50	%
Polymethylmethacrylate	Not listed	N.E.	N.E.	20-80
Methacrylate polymer	Not listed	N.E.	N.E.	20-80

#### SECTION 3 - PHYSICAL/CHEMICAL PROPERTIES

<b>BOILING POINT:</b> N.A.	<b>SPECIFIC GRAVITY:</b> N.E.
<b>VAPOR PRESSURE:</b> N.A.	<b>MELTING POINT:</b> N.E.
<b>VAPOR DENSITY:</b> N.A.	<b>EVAPORATION RATE:</b> N.A.
<b>SOLUBILITY IN WATER:</b> N.E.	<b>ODOR THRESHOLD:</b> N.E.
<b>COEFFICIENT OF OIL/WATER DISTRIBUTION:</b> N.E.	<b>APPEARANCE AND ODOR:</b> free flowing powder

#### SECTION 4 - FIRE AND EXPLOSION DATA

**FLASH POINT:** N.A. **FLAMMABLE LIMITS:** N.A.  
**EXTINGUISHING MEDIA:** Water fog, foam, carbon dioxide, dry chemical  
**SPECIAL FIRE FIGHTING PROCEDURES:** Self-contained breathing apparatus with full face piece and protective clothing.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** N.E.  
**HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, carbon monoxide, methyl methacrylate

#### SECTION 5 - REACTIVITY DATA

**STABILITY:** Stable  Unstable   
**POLYMERIZATION:** Will Not Occur  Will Occur

**CONDITIONS TO AVOID:** High heat and humidity  
**INCOMPATIBILITY (Materials to Avoid):** N.E.  
**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** N.E.

#### SECTION 6 - HEALTH HAZARD DATA and FIRST AID INFORMATION

	YES	NO	NE	NA	NTP	IARC	OSHA	OTHER
MUTAGENIC AFFECTS		X						
TERATOGENIC AFFECTS		X						
REPRODUCTIVE TOXIN		X						
CARCINOGENICITY		X						
SENSITIZER		X						

**ROUTES OF ENTRY:** Inhalation  Skin  Ingestion



MS349603

# NATURE-CRYL HI-20ET - POWDER

Page 2 of 2

## SECTION 6 - HEALTH HAZARD DATA and FIRST AID INFORMATION - continued

**HEALTH HAZARD (Acute and Chronic):** N.E.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE:** No adverse effects are known to be associated with exposure to this material.

**CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** N.E.

### EMERGENCY FIRST AID PROCEDURES:

**INHALATION:** Remove to fresh air. Seek medical attention if irritation develops.

**EYE CONTACT:** Flush eyes with water. Seek medical attention if irritation develops.

**SKIN CONTACT:** Wash skin with soap and water. Seek medical attention if irritation develops.

**INGESTION:** Give one or two glasses of water to drink. If gastrointestinal distress develops, seek medical attention.

## SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

**IN CASE OF RELEASE OR SPILL:** Sweep up and recover or mix material with moist absorbent and shovel into waste container. Wash spill area with hot water and detergent.

**WASTE DISPOSAL METHOD:** Dispose of in accordance with local, state and federal guidelines.

**STORAGE, HANDLING, AND SPECIAL PRECAUTIONS:** Store in cool dry place; keep away from high heat or open flame.

## SECTION 8 - CONTROL MEASURES

**RESPIRATORY PROTECTION:** Minimize exposure to dust. If needed, use MSHA-NIOSH approved respirator for dusts, mists and fumes.

**VENTILATION:** Local Exhaust: N.E. Mechanical: N.E. Special: N.E. Other: N.E.

**PROTECTIVE GLOVES:** Disposable vinyl gloves recommended.

**EYE PROTECTION:** Safety glasses recommended.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Eyewash station.

**WORK/HYGIENIC PRACTICE:** Follow good hygienic work practices.

## SECTION 9 - PREPARATION INFORMATION

*This data is supplied to comply with OSHA Hazard Communication Standard 29 CFR 1910,1200 and W.H.M.I.S. CPR.*

**DATE:** 09 January 2006

**REVIEWED:** 28 February 2012

**N.A. = NOT APPLICABLE**

**N.E. = NOT ESTABLISHED**

*The information herein is given in good faith but no warranty expressed or implied is made.*

**FIRE – 0**

**TOXICITY – 1**

**NFPA**

**REACTIVITY – 1**

**SPECIAL – OXY**

# Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015

Version US-EN-Rev 1

Reviewed on 02/24/2015

## 1 Identification

- **Product identifier**
- **Trade name:** NATURE-CRYL HI-20ET (Powder, Shades: COE Light Fibered+, COE-LOR Heavy, COE-LOR Mild, COE-LOR Moderate, Light, Light Reddish Pink, and Original)
- **Relevant identified uses of the substance or mixture and uses advised against**

Dental material  
The product is intended for professional use.  
To avoid risks for humans and environment obtain instructions.
- **Application of the substance / the mixture** Manufacture of dental prothesis
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**

GC America Inc.  
3737 W. 127th Street  
Alsip, IL 60803  
USA

sds@gcamerica.com
- **Information department:** Regulatory Affairs
- **Emergency telephone number:**


During normal opening times (Mon.-Fri. 8:00 AM-5:00 PM CST): +1 (708) 597-0900  
Transportation (CHEMTREC®) Emergency Telephone No. +1 (800) 424-9300

## 2 Hazard(s) identification

- **Classification of the substance or mixture**

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2B H320 Causes eye irritation.
- **Additional information:**

The information provided is in regards to the toxicity and hazard rating(s) of the individual component(s) in the formulation. The associated risk(s) depends on the route(s) of exposure. The hazard rating system is based entirely on the existence of the risk(s) and does not take into account the likelihood of reduced risk(s) through proper usage and handling.
- **Label elements**
- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**  


GHS07
- **Signal word** Warning
- **Hazard statements**

Causes skin and eye irritation.
- **Precautionary statements**

Wear protective gloves.

(Contd. on page 2)

USA

# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015

Version US-EN-Rev 1

Reviewed on 02/24/2015

**Trade name:** NATURE-CRYL HI-20ET (Powder, Shades: COE Light Fibered+, COE-LOR Heavy, COE-LOR Mild, COE-LOR Moderate, Light, Light Reddish Pink, and Original)

(Contd. of page 1)

Wash thoroughly after handling.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

If on skin: Wash with plenty of water.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 1  
Fire = 1  
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = 1  
Fire = 1  
Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

poly[(isodecyl methacrylate)-co-(methyl methacrylate)]	25-50%
poly(methyl methacrylate)	1-5%

- **Additional information:**

If a substance is marked with \*\*, then substance is a trade secret. This is allowed under OSHA's Hazard Communication Standard (HCS) as a trade secret and under GHS as Confidential Business Information (CBI).

### 4 First-aid measures

- **Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

If symptoms persist consult doctor.

- **After inhalation:**

Supply fresh air; consult doctor in case of complaints.

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Rinse with warm water.

Seek medical treatment.

If symptoms persist consult doctor.

(Contd. on page 3)

USA

# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015

Version US-EN-Rev 1

Reviewed on 02/24/2015

**Trade name:** NATURE-CRYL HI-20ET (Powder, Shades: COE Light Fibered+, COE-LOR Heavy, COE-LOR Mild, COE-LOR Moderate, Light, Light Reddish Pink, and Original)

(Contd. of page 2)

- **After eye contact:**  
Protect unharmed eye.  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**  
In case of fire, the following can be released:  
Carbon monoxide and carbon dioxide
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Remove persons from danger area.  
Avoid formation of dust.  
Avoid contact with the eyes and skin.  
Wear protective clothing.
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to penetrate the ground/soil.  
In case of seepage into the ground inform responsible authorities.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Prevent formation of dust.  
Dispose of the collected material according to regulations.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

USA

(Contd. on page 4)

# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015

Version US-EN-Rev 1

Reviewed on 02/24/2015

**Trade name:** NATURE-CRYL HI-20ET (Powder, Shades: COE Light Fibered+, COE-LOR Heavy, COE-LOR Mild, COE-LOR Moderate, Light, Light Reddish Pink, and Original)

(Contd. of page 3)

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
  - Observe instructions for use.
  - Prevent formation of dust.
  - Any deposit of dust which cannot be avoided must be regularly removed.
  - Avoid contact with the eyes and skin.
- **Information about protection against explosions and fires:**
  - Dust can combine with air to form an explosive mixture.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
  - Store only in unopened original receptacles.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
  - Observe instructions for use / storage.
  - Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
  - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - The usual precautionary measures for handling chemicals should be followed.
  - Do not inhale dust / smoke / mist.
  - Avoid contact with the eyes and skin.
  - Wash hands before breaks and at the end of work.
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **Protection of hands:** Protective gloves
- **Material of gloves**
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product 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.
- **Penetration time of glove material**
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 5)

USA

# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015

Version US-EN-Rev 1

Reviewed on 02/24/2015

**Trade name:** NATURE-CRYL HI-20ET (Powder, Shades: COE Light Fibered+, COE-LOR Heavy, COE-LOR Mild, COE-LOR Moderate, Light, Light Reddish Pink, and Original)

· **Eye protection:** Safety glasses

(Contd. of page 4)

### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

**Form:** Free-flowing powder

**Color:** Shade specific

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not determined.

· **Ignition temperature:** Undetermined.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

· **Vapor pressure:** Not applicable.

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapour density** Not applicable.

· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

**Water:** Insoluble.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

**Dynamic:** Not applicable.

**Kinematic:** Not applicable.

· **Solvent content:**

**Organic solvents:** 0.0 %

**Solids content:** 100.0 %

· **Other information** No further relevant information available.

USA

(Contd. on page 6)



# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015

Version US-EN-Rev 1

Reviewed on 02/24/2015

**Trade name:** NATURE-CRYL HI-20ET (Powder, Shades: COE Light Fibered+, COE-LOR Heavy, COE-LOR Mild, COE-LOR Moderate, Light, Light Reddish Pink, and Original)

(Contd. of page 5)

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable at ambient temperature.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** No further relevant information available.
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

poly(methyl methacrylate)	3
titanium dioxide	2B
iron(III) oxide	3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Carcinogenic categories' legend:**

IARC Group 1: The agent is carcinogenic to humans.  
 IARC Group 2A: The agent is probably carcinogenic to humans.  
 IARC Group 2B: The agent is possibly carcinogenic to humans.  
 IARC Group 3: The agent is not classifiable as to its carcinogenicity to humans.  
 IARC Group 4: The agent is probably not carcinogenic to humans.  
 NTP K: Known to be human carcinogen.  
 NTP R: Reasonably anticipated to be human carcinogen.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

(Contd. on page 7)

USA

# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015

Version US-EN-Rev 1

Reviewed on 02/24/2015

**Trade name:** NATURE-CRYL HI-20ET (Powder, Shades: COE Light Fibered+, COE-LOR Heavy, COE-LOR Mild, COE-LOR Moderate, Light, Light Reddish Pink, and Original)

(Contd. of page 6)

- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 3 (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Danger to drinking water if even extremely small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- |  |                 |
|--|-----------------|
| · <b>UN-Number</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void            |
| · <b>UN proper shipping name</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void            |
| · <b>Transport hazard class(es)</b>  |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   |                 |
| · <b>Class</b>   | Void            |
| · <b>Packing group</b>   |                 |
| · <b>DOT, ADR, IMDG, IATA</b>  | Void            |
| · <b>Environmental hazards:</b>  |                 |
| · <b>Marine pollutant:</b>   | No              |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | -               |

-USA-

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015

Version US-EN-Rev 1

Reviewed on 02/24/2015

**Trade name:** NATURE-CRYL HI-20ET (Powder, Shades: COE Light Fibered+, COE-LOR Heavy, COE-LOR Mild, COE-LOR Moderate, Light, Light Reddish Pink, and Original)

(Contd. of page 7)

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act)

- **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

poly(methyl methacrylate)

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

titanium dioxide

A4

iron(III) oxide

A4

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

titanium dioxide

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard statements**

Causes skin and eye irritation.

- **Precautionary statements**

Wear protective gloves.

Wash thoroughly after handling.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

If on skin: Wash with plenty of water.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

- **Department issuing MSDS:** Regulatory Affairs

(Contd. on page 9)

USA

# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015

Version US-EN-Rev 1

Reviewed on 02/24/2015

**Trade name:** NATURE-CRYL HI-20ET (Powder, Shades: COE Light Fibered+, COE-LOR Heavy, COE-LOR Mild, COE-LOR Moderate, Light, Light Reddish Pink, and Original)

(Contd. of page 8)

- **Contact:**

Regulatory Affairs  
Telephone No. +1 (708) 597-0900  
sds@gcamerica.com

- **Date of preparation / last revision** 02/24/2015 / -

- **Abbreviations and acronyms:**

GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
HCS: Hazard Communication Standard (USA)  
MSDS: Material Safety Data Sheet  
SDS: Safety Data Sheet  
ADN: Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways)  
ECHA: European Chemicals Agency  
OSHA: Occupational Safety and Health Administration (USA)  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B

- **Sources**

- Manufacturers' MSDSs/SDSs
- OSHA (<https://www.osha.gov/dts/chemicalsampling/toc/chmcas.html>)
- TOXNET (<http://toxnet.nlm.nih.gov/>)
- ECHA (<http://echa.europa.eu/>)
- EnviChem ([www.echemportal.org](http://www.echemportal.org))

- **Notes:**

CAS Registry Number is a Registered Trademark of the American Chemical Society.  
CHEMTREC® is a registered service mark of the American Chemistry Council, Inc.

- **\* Data compared to the previous version altered.** This version replaces all previous versions.

- **Disclaimer:**

The information contained herein is believed to be true and accurate. However, all statements, recommendations or suggestions are made without any guarantee, representation or warranty, express or implied, on our part. Therefore, no warranty is made or to be implied that the information set out in this document is accurate or complete, and we accordingly exclude all liability in connection with the use of this information or the products referred to herein. All such risks are assumed by the purchaser/user. The information contained herein is also subject to change without notice. For the avoidance of doubt, however, nothing in this document excludes or limits our liability for death or personal injury caused by our negligence or for fraudulent misrepresentation.

USA