

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/17/2019

Reviewed on 01/17/2019

1 Identification

- **Product identifier**
- **Product Name:** TCLP Base/Neutral/Acid Extractable Spike Solution
- **Part Number:** TCLP-BNA
- **Application of the substance / the mixture** Certified Reference Material
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SPEX CertiPrep, LLC.
203 Norcross Ave, Metuchen,
NJ 08840 USA
- **Information department:** product safety department
- **Emergency telephone number:**
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

Repr. 1A H360 May damage fertility or the unborn child.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **Label elements**

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

- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

dichloromethane
nitrobenzene
2,4-dinitrotoluene
hexachlorobenzene

- **Hazard statements**

H225 Highly flammable liquid and vapor.
H302 Harmful if swallowed.
H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.

- **Precautionary statements**

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Use explosion-proof electrical/ventilating/lighting/equipment.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

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Product Name: TCLP Base/Neutral/Acid Extractable Spike Solution

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- Classification system:
- NFPA ratings (scale 0 - 4)



- HMIS-ratings (scale 0 - 4)

HEALTH	1	Health = *1
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment

· PBT:

87-68-3 hexachlorobuta-1,3-diene

· vPvB:

87-68-3 hexachlorobuta-1,3-diene

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

75-09-2	dichloromethane	97.4%
118-74-1	hexachlorobenzene	0.2%
87-68-3	hexachlorobuta-1,3-diene	0.2%
95-95-4	2,4,5-trichlorophenol	0.2%
106-46-7	1,4-dichlorobenzene	0.2%
88-06-2	2,4,6-trichlorophenol	0.2%
121-14-2	2,4-dinitrotoluene	0.2%
98-95-3	nitrobenzene	0.2%
87-86-5	pentachlorophenol	0.2%
67-72-1	hexachloroethane	0.2%

· Chemical identification of the substance/preparation

95-48-7	o-cresol	0.2%
108-39-4	3-Methylphenol	0.2%
106-44-5	p-cresol	0.2%
110-86-1	PYRIDINE	0.2%

4 First-aid measures

- Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing:

Immediately call a doctor.

Do not give anything to eat or drink - Do not induce vomiting

· 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.

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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.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

75-09-2	dichloromethane	200 ppm
118-74-1	hexachlorobenzene	0.006 mg/m ³
87-68-3	hexachlorobuta-1,3-diene	1 ppm
95-95-4	2,4,5-trichlorophenol	2.5 mg/m ³
106-46-7	1,4-dichlorobenzene	30 ppm
88-06-2	2,4,6-trichlorophenol	2.5 mg/m ³
121-14-2	2,4-dinitrotoluene	0.6 mg/m ³
98-95-3	nitrobenzene	3 ppm
87-86-5	pentachlorophenol	1 mg/m ³
110-86-1	PYRIDINE	3 ppm
67-72-1	hexachloroethane	3 ppm

· **PAC-2:**

75-09-2	dichloromethane	560 ppm
118-74-1	hexachlorobenzene	14 mg/m ³
87-68-3	hexachlorobuta-1,3-diene	3 ppm
95-95-4	2,4,5-trichlorophenol	27 mg/m ³
106-46-7	1,4-dichlorobenzene	170 ppm
88-06-2	2,4,6-trichlorophenol	27 mg/m ³
121-14-2	2,4-dinitrotoluene	12 mg/m ³
98-95-3	nitrobenzene	20 ppm
87-86-5	pentachlorophenol	15 mg/m ³
110-86-1	PYRIDINE	19 ppm
67-72-1	hexachloroethane	36 ppm

· **PAC-3:**

75-09-2	dichloromethane	6,900 ppm
118-74-1	hexachlorobenzene	91 mg/m ³
87-68-3	hexachlorobuta-1,3-diene	10 ppm
95-95-4	2,4,5-trichlorophenol	160 mg/m ³
106-46-7	1,4-dichlorobenzene	1,000 ppm
88-06-2	2,4,6-trichlorophenol	160 mg/m ³
121-14-2	2,4-dinitrotoluene	200 mg/m ³
98-95-3	nitrobenzene	200 ppm
87-86-5	pentachlorophenol	150 mg/m ³
110-86-1	PYRIDINE	3600* ppm

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67-72-1 hexachloroethane

300 ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Open and handle receptacle with care.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **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 following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

75-09-2 dichloromethane

PEL Short-term value: 125 ppm
Long-term value: 25 ppm
see 29 CFR 1910.1052
REL See Pocket Guide App. A
TLV Long-term value: 174 mg/m³, 50 ppm
BEI

118-74-1 hexachlorobenzene

TLV Long-term value: 0.002 mg/m³
Skin

87-68-3 hexachlorobuta-1,3-diene

REL Long-term value: 0.24 mg/m³, 0.02 ppm
Skin; See Pocket Guide App. A
TLV Long-term value: 0.21 mg/m³, 0.02 ppm
Skin

106-46-7 1,4-dichlorobenzene

PEL Long-term value: 450 mg/m³, 75 ppm
REL See Pocket Guide App. A
TLV Long-term value: 60 mg/m³, 10 ppm

98-95-3 nitrobenzene

PEL Long-term value: 5 mg/m³, 1 ppm
Skin
REL Long-term value: 5 mg/m³, 1 ppm
Skin
TLV Long-term value: 5 mg/m³, 1 ppm
Skin; BEIm

87-86-5 pentachlorophenol

PEL Long-term value: 0.5 mg/m³
Skin
REL Long-term value: 0.5 mg/m³
Skin
TLV Short-term value: 1* mg/m³
Long-term value: 0.5* mg/m³
Skin; BEI;*inhalable fraction+vapor

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Product Name: TCLP Base/Neutral/Acid Extractable Spike Solution

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67-72-1 hexachloroethane

PEL	Long-term value: 10 mg/m ³ , 1 ppm Skin
REL	Long-term value: 10 mg/m ³ , 1 ppm Skin; See Pocket Guide Apps. A and C
TLV	Long-term value: 9.7 mg/m ³ , 1 ppm Skin

· **Ingredients with biological limit values:****75-09-2 dichloromethane**

BEI	0.3 mg/L Medium: urine Time: end of shift Parameter: Dichloromethane (semi-quantitative)
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98-95-3 nitrobenzene

BEI	5 mg/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Total p-nitrophenol (nonspecific)
	1.5 % of hemoglobin Medium: blood Time: end of shift Parameter: Methemoglobin (background, nonspecific, semi-quantitative)

87-86-5 pentachlorophenol

BEI	2 mg/g creatinine Medium: urine Time: prior to last shift of workweek Parameter: Total pentachlorophenol (background)
	5 mg/L Medium: plasma Time: end of shift Parameter: Free pentachlorophenol (background)

· **Additional information:** The lists that were valid during the creation were used as basis.· **Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.

· **Respiratory protection:** Not required.· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **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.

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Product Name: TCLP Base/Neutral/Acid Extractable Spike Solution

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· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Color:	According to product specification
Odor:	Characteristic
Odour Threshold:	Not applicable.

· pH-value: Not applicable.

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	40 °C (104 °F)

· Flash point: < 0 °C (<32 °F)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 605 °C (1,121 °F)

· Decomposition temperature: Not applicable.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower:	13 Vol %
Upper:	22 Vol %

· Vapor pressure at 20 °C (68 °F): 453 hPa (339.8 mm Hg)

· Density at 20 °C (68 °F) 1.33329 g/cm³ (11.12631 lbs/gal)

· Relative density Not applicable.

· Vapor density Not applicable.

· Evaporation rate Not applicable.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

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

· Viscosity:

Dynamic:	Not applicable.
Kinematic:	Not applicable.

· Solvent content:

Organic solvents:	98.0 %
VOC content:	0.60 %

Solids content: 1.8 %

· Other information No further relevant information available.

10 Stability and reactivity

· Reactivity No further relevant information available.

· Chemical stability

· 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.

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11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

· LD/LC50 values that are relevant for classification:

75-09-2 dichloromethane

Oral	LD50	1,600 mg/kg (rat)
Inhalative	LC50/4 h	88 mg/l (rat)

106-46-7 1,4-dichlorobenzene

Oral	LD50	500 mg/kg (rat)
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88-06-2 2,4,6-trichlorophenol

Oral	LD50	820 mg/kg (rat)
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121-14-2 2,4-dinitrotoluene

Oral	LD50	268 mg/kg (rat)
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87-86-5 pentachlorophenol

Oral	LD50	27 mg/kg (rat)
Dermal	LD50	105 mg/kg (rat)

- Primary irritant effect:

- on the eye: No irritating effect.

- Sensitization: No sensitizing effects known.

- Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Product is suspected to cause damage to fertility.

Product is suspected to cause birth defects.

- Carcinogenic categories

· IARC (International Agency for Research on Cancer)

75-09-2	dichloromethane	2A
118-74-1	hexachlorobenzene	2B
87-68-3	hexachlorobuta-1,3-diene	3
95-95-4	2,4,5-trichlorophenol	2B
106-46-7	1,4-dichlorobenzene	2B
88-06-2	2,4,6-trichlorophenol	2B
121-14-2	2,4-dinitrotoluene	2B
98-95-3	nitrobenzene	2B
87-86-5	pentachlorophenol	2B
110-86-1	PYRIDINE	3
67-72-1	hexachloroethane	2B

· NTP (National Toxicology Program)

75-09-2	dichloromethane	R
118-74-1	hexachlorobenzene	R
106-46-7	1,4-dichlorobenzene	R
88-06-2	2,4,6-trichlorophenol	R
98-95-3	nitrobenzene	R
87-86-5	pentachlorophenol	R
67-72-1	hexachloroethane	R

· OSHA-Ca (Occupational Safety & Health Administration)

75-09-2	dichloromethane
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12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.

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- **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:**

87-68-3 hexachlorobuta-1,3-diene

· **vPvB:**

87-68-3 hexachlorobuta-1,3-diene

- **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

· **UN-Number**· **DOT, ADR, IMDG, IATA**

UN1593

· **UN proper shipping name**· **DOT**

Dichloromethane

· **ADR**

1593 Dichloromethane

· **IMDG, IATA**

DICHLOROMETHANE

· **Transport hazard class(es)**· **DOT**· **Class**

6.1 Toxic substances

· **Label**

6.1

· **ADR, IMDG, IATA**· **Class**

6.1 Toxic substances

· **Label**

6.1

· **Packing group**· **DOT, ADR, IMDG, IATA**

III

· **Environmental hazards:**

Not applicable.

· **Special precautions for user**

Warning: Toxic substances

· **Danger code (Kemler):**

60

· **EMS Number:**

F-A,S-A

· **Segregation groups**

Liquid halogenated hydrocarbons

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC**· **Code**

Not applicable.

· **Transport/Additional information:**· **ADR**· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

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<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN 1593 DICHLOROMETHANE, 6.1, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

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

All ingredients are listed.

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

All ingredients are listed.

· **TSCA new (21st Century Act) (Substances not listed)**

87-68-3 hexachlorobuta-1,3-diene

95-95-4 2,4,5-trichlorophenol

88-06-2 2,4,6-trichlorophenol

· **Proposition 65**

· **Chemicals known to cause cancer:**

75-09-2 dichloromethane

118-74-1 hexachlorobenzene

87-68-3 hexachlorobuta-1,3-diene

106-46-7 1,4-dichlorobenzene

88-06-2 2,4,6-trichlorophenol

121-14-2 2,4-dinitrotoluene

98-95-3 nitrobenzene

87-86-5 pentachlorophenol

110-86-1 PYRIDINE

67-72-1 hexachloroethane

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

121-14-2 2,4-dinitrotoluene

98-95-3 nitrobenzene

· **Chemicals known to cause developmental toxicity:**

118-74-1 hexachlorobenzene

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

75-09-2	dichloromethane	L
118-74-1	hexachlorobenzene	B2
87-68-3	hexachlorobuta-1,3-diene	C
88-06-2	2,4,6-trichlorophenol	B2
95-48-7	o-cresol	C
108-39-4	3-Methylphenol	C
106-44-5	p-cresol	C
98-95-3	nitrobenzene	L
87-86-5	pentachlorophenol	L
67-72-1	hexachloroethane	L

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

75-09-2	dichloromethane	A3
118-74-1	hexachlorobenzene	A3
87-68-3	hexachlorobuta-1,3-diene	A3
106-46-7	1,4-dichlorobenzene	A3

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98-95-3	nitrobenzene	A3
87-86-5	pentachlorophenol	A3
67-72-1	hexachloroethane	A3

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

75-09-2	dichloromethane
87-68-3	hexachlorobuta-1,3-diene
106-46-7	1,4-dichlorobenzene
121-14-2	2,4-dinitrotoluene
67-72-1	hexachloroethane

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

GHS02

GHS07

GHS08

· **Signal word** Danger· **Hazard-determining components of labeling:**

dichloromethane
nitrobenzene
2,4-dinitrotoluene
hexachlorobenzene

· **Hazard statements**

H225 Highly flammable liquid and vapor.
H302 Harmful if swallowed.
H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.

· **Precautionary statements**

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Use explosion-proof electrical/ventilating/lighting/equipment.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** product safety department· **Contact:**

SPEX CertiPrep, LLC.
1-732-549-7144

· **Date of preparation / last revision** 01/17/2019 / -· **Abbreviations and acronyms:**

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
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit

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BEI: Biological Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Carc. 2: Carcinogenicity – Category 2
Repr. 1A: Reproductive toxicity – Category 1A

US