1 Identification

- · Product identifier
- · Product Name: Etofenprox in Solution
- · Part Number: LCS-6104
- · 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.



Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Eye Irrit. 2A H319 Causes serious eye irritation.

- · Label elements
- $\cdot \textit{GHS label elements} \ \textit{The product is classified and labeled according to the Globally Harmonized System (GHS)}.$
- · Hazard pictograms





GHS02

GHS07

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

acetonitrile

· Hazard statements

H225 Highly flammable liquid and vapor.

H312+H332 Harmful in contact with skin or if inhaled.

H319 Causes serious eye irritation.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Specific treatment (see on this label).

Dispose of contents/container in accordance with local/regional/national/international regulations.

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



Health = 1 Fire = 3Reactivity = 0

(Contd. on page 2)

Product Name: Etofenprox in Solution

· HMIS-ratings (scale 0 - 4)

(Contd. of page 1)



- · 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:

75-05-8 acetonitrile 99.9%

Chemical identification of the substance/preparation

80844-07-1 Etofenprox 0.1%

4 First-aid measures

- · Description of first aid measures
- General information: 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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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

- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- · After swallowing: Immediately call a 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, sand, extinguishing powder. Do not use water.
- · 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: Mouth respiratory protective device.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
- · 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 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.

Do not flush with water or aqueous cleansing agents

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:

75-05-8 acetonitrile

13 ppm

Product Name: Etofenprox in Solution

	(Contd. of page 2)
· PAC-2:	
75-05-8 acetonitrile	50 ppm
· PAC-3:	
75-05-8 acetonitrile	150 ppm

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · 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:

75-05-8 acetonitrile

PEL Long-term value: 70 mg/m³, 40 ppm REL Long-term value: 34 mg/m³, 20 ppm TLV Long-term value: 34 mg/m³, 20 ppm Skin

- · 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.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· 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.

(Contd. on page 4)

(Contd. of page 3)

Printing date 05/16/2017 Reviewed on 05/16/2017

Product Name: Etofenprox in Solution

· Eye protection:



9 Physical and chemical properties · Information on basic physical and chemical properties · General Information · Appearance: Form: Liquid According to product specification Color: Characteristic · Odour Threshold: Not applicable. · pH-value: Not applicable. · Change in condition Melting point/Melting range: Undetermined. Boiling point/Boiling range: 81 °C (178 °F) 5 °C (41 °F) · Flash point: · Flammability (solid, gaseous): Not applicable. 525 °C (977 °F) · Ignition temperature: · Decomposition temperature: Not applicable. Product is not selfigniting. · Auto igniting: Product is not explosive. However, formation of explosive air/vapor mixtures are possible. · Danger of explosion: · Explosion limits: 4.4 Vol % Lower: Upper: 16.0 Vol % · Vapor pressure at 20 °C (68 °F): 97 hPa (73 mm Hg) · Density Not applicable. · Relative density Not applicable. · Vapor density Not applicable. · Evaporation rate Not applicable. · Solubility in / Miscibility with Not miscible or difficult to mix. · Partition coefficient (n-octanol/water): Not applicable. · Viscosity: Dynamic: Not applicable. Kinematic: Not applicable.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability

· Solvent content:

Other information

Organic solvents:
Solids content:

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

No further relevant information available.

- · 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.

0.0~%

0.1 %

Product Name: Etofenprox in Solution

(Contd. of page 4)

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC50 values that are relevant for classification:

75-05-8 acetonitrile

Oral LD50 2730 mg/kg (rat)

Dermal LD50 1250 mg/kg (rabbit)

- Primary irritant effect:
- · on the skin: No irritant effect.
- · 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:

Harmful

Irritant

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- · 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

- $\cdot \textit{UN-Number}$
- · DOT, ADR, IMDG, IATA UN1648
- · UN proper shipping name

· DOT Acetonitrile

• ADR
• 1648 Acetonitrile, ENVIRONMENTALLY HAZARDOUS
• IMDG
• ACETONITRILE, MARINE POLLUTANT

(Contd. on page 6)

Product Name: Etofenprox in Solution

(Contd. of page 5) \cdot IATA **ACETONITRILE** · Transport hazard class(es) $\cdot DOT$ 3 Flammable liquids · Class · Label · ADR, IMDG · Class 3 Flammable liquids · Label \cdot IATA 3 Flammable liquids · Class · Label · Packing group · DOT, ADR, IMDG, IATA II · Environmental hazards: Product contains environmentally hazardous substances: Etofenprox · Marine pollutant: Symbol (fish and tree) Symbol (fish and tree) · Special marking (ADR): · Special precautions for user Warning: Flammable liquids · Danger code (Kemler): 33 F-E,S-D· EMS Number: · Stowage Category SW2 Clear of living quarters. · Stowage Code · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Not applicable. · Transport/Additional information: \cdot ADR · Excepted quantities (EQ) Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml · IMDG 1L· Limited quantities (LQ) · Excepted quantities (EQ) Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

15 Regulatory information

· UN "Model Regulation":

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

75-05-8 acetonitrile

(Contd. on page 7)

UN 1648 ACETONITRILE, 3, II, ENVIRONMENTALLY HAZARDOUS

Product Name: Etofenprox in Solution

(Contd. of page 6)

· TSCA (Toxic Substances Control Act):

75-05-8 acetonitrile

Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

75-05-8 acetonitrile CBD. D

· TLV (Threshold Limit Value established by ACGIH)

75-05-8 acetonitrile A4

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

None of the ingredients is listed.

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





GHS02

GHS07

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

acetonitrile

· Hazard statements

Highly flammable liquid and vapor. H225H312+H332 Harmful in contact with skin or if inhaled.

H319 Causes serious eye irritation.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Specific treatment (see on this label).

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 05/16/2017 / -
- · 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

vPvB: very Persistent and very Bioaccumulative

PBT: Persistent, Bioaccumulative and Toxic

(Contd. on page 8)

Safety Data Sheet acc. to OSHA HCS

Printing date 05/16/2017 Reviewed on 05/16/2017

Product Name: Etofenprox in Solution

NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

(Contd. of page 7)