Reviewed on 07/09/2020

1 Identification

- · Product identifier
- · Product Name: Single Dithianon
- · Part Name: LCS-6754
- · 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



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



GHS08 Health hazard

Carc. 1B H350 May cause cancer.



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



· Signal word Danger

- · Hazard-determining components of labeling:
- acetonitrile

dithianon (ISO)

· Hazard statements

- H225 Highly flammable liquid and vapor.
- H312+H332 Harmful in contact with skin or if inhaled. H319 Causes serious eye irritation.

H350 May cause cancer.

· Precautionary statements

DO 10	
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/equipment.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)

99.9%

0.1%

Safety Data Sheet acc. to OSHA HCS

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		(Contd. of page 1)
P312	Call a poison center/doctor if you feel unwell.	
P321	Specific treatment (see on this label).	
P362+P364	Take off contaminated clothing and wash it before reuse.	
P403+P235	Store in a well-ventilated place. Keep cool.	
P405	Store locked up.	
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.	
· Classification sy	ustem:	
· NFPA ratings (s	scale 0 - 4)	
2	Health = 2	
	Fire = 3	
$\langle 2 \rangle 0 \rangle$	Reactivity = 0	
\checkmark		
· HMIS-ratings (s	scale 0 - 4)	
HEALTH *2		
FIRE 3		
REACTIVITY 0	Reactivity = 0	
	-	
• Other hazards		
	and vPvB assessment	
• PBT: Not applie		
• vPvB: Not appli	cadie.	
20		
3 Composition/i	nformation on ingredients	
	cterization: Mixtures	

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

· Dangerous components:

75-05-8 acetonitrile

3347-22-6 dithianon (ISO)

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. 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: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- · After swallowing: Do not give anything to eat or drink Do not induce vomitting
- · 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.
- 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:

- Dilute with plenty of water.
- 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).

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	(Contd. of page 2)
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:	
75-05-8 acetonitrile	13 ppm
· 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. Open and handle receptacle with care.
- Prevent formation of aerosols.
- · 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 constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit. At this time, the remaining constituent has no known exposure limits.

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. Store protective clothing separately.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.
- · Respiratory protection:

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.

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· 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.
- Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and c	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:	81 °C (177.8 °F)	
· Flash point:	< 23 °C (< 73.4 °F)	
· Flammability (solid, gaseous):	Not applicable.	
· Ignition temperature:	525 °C (977 °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:	4.4 Vol %	
Upper:	16 Vol %	
\cdot Vapor pressure at 20 °C (68 °F):	97 hPa (72.8 mm Hg)	
· Density	Not applicable.	
· Relative density	Not applicable.	
· Vapor density	Not applicable.	
• Evaporation rate	Not applicable.	
· Solubility in / Miscibility with		
Water:	Fully miscible.	
· Partition coefficient (n-octanol/wate	e r): Not applicable.	
· Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
· Solvent content:		
VOC content:	0.00 %	
Solids content:	0.1 %	
		(Contd. on page 5)
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• Other information

No further relevant information available.

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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.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

75-05-8 acetonitrile

Oral LD50 2,730 mg/kg (rat)

Dermal LD50 1,250 mg/kg (rabbit)

- · Primary 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) 3347-22-6 dithianon (ISO)
 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.
- 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.
- · 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.

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• Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information · UN-Number · DOT, ADR, IMDG, IATA UN1648 · UN proper shipping name $\cdot DOT$ Acetonitrile 1648 ACETONITRILE $\cdot ADR$ · IMDG, IATA ACETONITRILE · Transport hazard class(es) $\cdot DOT$ · Class 3 Flammable liquids · Label 3 · ADR, IMDG, IATA 3 Flammable liquids · Class · Label 3 · Packing group · DOT, ADR, ÎMDG, IATA II · Environmental hazards: Not applicable. · Special precautions for user Warning: Flammable liquids · Hazard identification number (Kemler code): 33 · EMS Number: F-E,S-D В · Stowage Category · Stowage Code SW2 Clear of living quarters. · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Not applicable. Code · Transport/Additional information: · ADR \cdot Excepted quantities (EQ) Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml · IMDG · Limited quantities (LQ) lLCode: E2 \cdot Excepted quantities (EQ) Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml UN 1648 ACETONITRILE, 3, II · UN "Model Regulation":

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
 Sara
 Section 313 (Specific toxic chemical listings):
 75-05-8 acetonitrile
 TSCA (Toxic Substances Control Act):
 75-05-8 acetonitrile
 (Contd. on page 7)
 (Contd. on page 7)

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	(Contd. of page 6)
· Hazardous Air Pollutants	
All ingredients are listed.	
· 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



· Signal word Danger

• Hazard-deter acetonitrile	mining components of labeling:
dithianon (IS	2)
· Hazard state	
H225	Highly flammable liquid and vapor.
H312+H332	Harmful in contact with skin or if inhaled.
H319	Causes serious eye irritation.
H350	May cause cancer.
· Precautionar	y 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/equipment.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+	P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+	P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a poison center/doctor if you feel unwell.
P321	Specific treatment (see on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

· Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· 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.

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Product Name: Single Dithianon

· Department issuing SDS: product safety department · Contact: SPEX CertiPrep, LLC. 1-732-549-7144 · Date of preparation / last revision 07/09/2020 / -• 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 CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (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 Flam. Liq. 2: Flammable liquids – Category 2 Acute Tox. 4: Acute Toxisity – Category 4 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A Carc. 1B: Carcinogenicity – Category 1B

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