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## **D-Lead Test Kit Solution 1**

#### CA Group

Chemwatch: 5388-49 Version No: 2.1.1.1 Safety Data Sheet according to WHS and ADG requirements Chemwatch Hazard Alert Code: 3

Issue Date: **28/01/2020** Print Date: **02/07/2020** S.GHS.AUS.EN

## SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

#### **Product Identifier**

Product name	D-Lead Test Kit Solution 1
Synonyms	Not Available
Other means of identification	Not Available
Relevant identified uses of the substance or mixture and uses advised against	

Relevant identified uses Detecting presence of lead.

#### Details of the supplier of the safety data sheet

Registered company name	CA Group	Esca Tech
Address	32 Industrial Avenue Thomastown VIC 3074 Australia	3747 North Booth Street Milwaukee WI 53212 United States
Telephone	+61 3 8301 7100	+1 414 962 5323 +1 877 523 5323
Fax	+61 3 9359 4076	+61 3 9359 4076
Website	www.cagroup.com.au	http://www.esca-tech.com
Email	jmarchese@cagroup.com.au	cservice@esca-tech.com

#### Emergency telephone number

Association / Organisation	(03) 8301 7100
Emergency telephone numbers	(03) 8301 7107 (Business hours 9am – 5pm)
Other emergency telephone numbers	0428 904 506 (After Hours)

## SECTION 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

## HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

#### CHEMWATCH HAZARD RATINGS

	Min	Max	
Flammability	0	1	
Toxicity	0	1	0 = Minimum
Body Contact	3		1 = Low 2 - Moderate
Reactivity	1		3 = High
Chronic	0	1	4 = Extreme

Poisons Schedule	Not Applicable
Classification <sup>[1]</sup>	Skin Corrosion/Irritation Category 2, Serious Eye Damage Category 1, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation)
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

#### Label elements

Hazard pictogram(s)	
SIGNAL WORD	DANGER

#### Hazard statement(s)

( )	
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

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## Precautionary statement(s) Prevention

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing mist/vapours/spray.

## Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P310	Immediately call a POISON CENTER or doctor/physician.	
P321	Specific treatment (see advice on this label).	
P362	Take off contaminated clothing and wash before reuse.	

#### Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

#### Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

#### Substances

See section below for composition of Mixtures

#### Mixtures

CAS No	%[weight]	Name
64-19-7	<5	acetic acid solution, 10-80%

## **SECTION 4 FIRST AID MEASURES**

#### Description of first aid measures

Eye Contact	<ul> <li>If this product comes in contact with the eyes:</li> <li>Immediately hold eyelids apart and flush the eye continuously with running water.</li> <li>Ensure 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.</li> <li>Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>Transport to hospital or doctor without delay.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
Skin Contact	<ul> <li>If skin contact occurs:</li> <li>Immediately remove all contaminated clothing, including footwear.</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>
Inhalation	<ul> <li>If fumes or combustion products are inhaled remove from contaminated area.</li> <li>Lay patient down. Keep warm and rested.</li> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>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.</li> <li>Transport to hospital, or doctor, without delay.</li> </ul>
Ingestion	<ul> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Seek medical advice.</li> </ul>

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5 FIREFIGHTING MEASURES

#### Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

#### 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			
Advice for firefighters				
Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves in the event of a fire.</li> </ul>			

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	<ul> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use fire fighting procedures suitable for surrounding area.</li> </ul>
Fire/Explosion Hazard	<ul> <li>Non combustible.</li> <li>Not considered a significant fire risk, however containers may burn.</li> <li>Decomposes on heating and produces:</li> <li>carbon dioxide (CO2)</li> <li>other pyrolysis products typical of burning organic material.</li> <li>May emit poisonous fumes.</li> <li>May emit corrosive fumes.</li> </ul>
HAZCHEM	Not Applicable

## SECTION 6 ACCIDENTAL RELEASE MEASURES

## Personal precautions, protective equipment and emergency procedures

See section 8

#### **Environmental precautions**

See section 12

## Methods and material for containment and cleaning up

Minor Spills	<ul> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Contain and absorb spill with sand, earth, inert material or vermiculite.</li> </ul>
Major Spills	Moderate hazard.  Clear area of personnel and move upwind.  Alert Fire Brigade and tell them location and nature of hazard.  Wear breathing apparatus plus protective gloves.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 HANDLING AND STORAGE

## Precautions for safe handling

Safe handling	<ul> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Avoid contact with moisture.</li> <li>DO NOT allow clothing wet with material to stay in contact with skin</li> </ul>
Other information	<ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>Store in a cool, dry, well-ventilated area.</li> <li>Store away from incompatible materials and foodstuff containers.</li> </ul>
Conditions for safe storage, in	cluding any incompatibilities

Suitable container	<ul> <li>Polyethylene or polypropylene container.</li> <li>Packing as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul>
Storage incompatibility	<ul> <li>Avoid reaction with oxidising agents</li> <li>Avoid strong acids, bases.</li> </ul>

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **Control parameters**

## OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA							
Source	Ingredient	Material name	TWA		STEL	Peak	Notes
Australia Exposure Standards	acetic acid solution, 10-80%	Acetic acid	10 ppm / 25 mg/r	m3	37 mg/m3 / 15 ppm	Not Available	Not Available
EMERGENCY LIMITS							
Ingredient	Material name	TEEL-1		TEEL	-2	TEEL-3	
acetic acid solution, 10-80%	Acetic acid	Not Available		Not A	vailable	Not Available	
Ingredient	Original IDLH			Revise	d IDLH		
acetic acid solution, 10-80%	Not Available			Not Ava	ilable		

#### Exposure controls

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

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Personal protection	
Eye and face protection	<ul> <li>Safety glasses with side shields.</li> <li>Chemical goggles.</li> <li>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.</li> </ul>
Skin protection	See Hand protection below
Hands/feet protection	<ul> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> <li>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.</li> <li>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.</li> <li>Personal hygiene is a key element of effective hand care.</li> </ul>
Body protection	See Other protection below
Other protection	<ul> <li>Overalls.</li> <li>P.V.C apron.</li> <li>Barrier cream.</li> <li>Skin cleansing cream.</li> </ul>

#### Recommended material(s)

GLOVE SELECTION INDEX

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:

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Material	CPI
BUTYL	A
NEOPRENE	A
NITRILE+PVC	A
PE	A
PE/EVAL/PE	A
PVC	A
SARANEX-23	A
TEFLON	A
BUTYL/NEOPRENE	В
NATURAL RUBBER	В
NATURAL+NEOPRENE	В
NITRILE	В
NAT+NEOPR+NITRILE	С

\* 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

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.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

Respiratory protection Type AB 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 10 x ES	AB-AUS	-	AB-PAPR-AUS / Class 1
up to 50 x ES	-	AB-AUS / Class 1	-
up to 100 x ES	-	AB-2	AB-PAPR-2 ^

#### ^ - 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(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- 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.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

Appearance	Clear colourless liquid with apple and vinegar odour; mixes with water.				
Physical state	Liquid	Relative density (Water = 1)	1		
Odour	Not Available	Partition coefficient n-octanol / water	Not Available		
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable		
pH (as supplied)	2.4-2.9	Decomposition temperature	Not Available		
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available		
Initial boiling point and boiling range (°C)	~100	Molecular weight (g/mol)	Not Applicable		

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Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	<1	VOC g/L	Not Available

## SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.
Ingestion	The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	If applied to the eyes, this material causes severe eye damage.
Chronic	Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems.

D-Lead Test Kit Solution 1	TOXICITY Not Available	IRRITATION Not Available
acetic acid solution, 10-80%	TOXICITY Not Available	IRRITATION Eye (rabbit): 0.05mg (open)-SEVERE Skin (human):50mg/24hr - mild Skin (rabbit):525mg (open)-SEVERE
Legend:	<ol> <li>Value obtained from Europe ECHA Registered Substances - Acute to specified data extracted from RTECS - Register of Toxic Effect of chemi</li> </ol>	xicity 2.* Value obtained from manufacturer's SDS. Unless otherwise cal Substances

ACETIC ACID SOLUTION, 10-80%	Asthma-like symptoms may continue for months or evolution is a reactive airways dysfunction syndrome (RAI criteria for diagnosing RADS include the absence of prasthma-like symptoms within minutes to hours of a doairflow pattern on lung function tests, moderate to sevolymphocytic inflammation, without eosinophilia. For acid mists, aerosols, vapours Test results suggest that eukaryotic cells are susceptite not been examined in this respect. Mucous secretion r protects the stomach lining from the hydrochloric acid The material may produce severe irritation to the eye or produce conjunctivitis. The material may cause severe skin irritation after proproduction of vesicles, scaling and thickening of the sk Prolonged inhalation exposure results in muscle imba but no reproductive or foetal toxicity, according to anim	en years after exposure to the materia DS) which can occur after exposure to revious airways disease in a non-atop cumented exposure to the irritant. Oth ere bronchial hyperreactivity on methe ole to genetic damage when the pH fa nay protect the cells of the airway fro secreted there). causing pronounced inflammation. Re- longed or repeated exposure and ma in. Repeated exposures may produce oduce irritation and/ or corrosion at th lance, increase in blood cholinestera: nal testing.	al ends. This may be due to a non-allergic condition b high levels of highly irritating compound. Main ic individual, with sudden onset of persistent er criteria for diagnosis of RADS include a reversible acholine challenge testing, and the lack of minimal ills to about 6.5. Cells from the respiratory tract have m direct exposure to inhaled acidic mists (which also epeated or prolonged exposure to irritants may y produce on contact skin redness, swelling, the e severe ulceration. e site of contact as well as systemic toxicity. se activity, decrease in albumin and decreased growth
Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	¥	Reproductivity	×
Serious Eye Damage/Irritation	¥	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×

Mutagenicity X

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Aspiration Hazard

Data either not available or does not fill the criteria for classification
 Data available to make classification

×

## SECTION 12 ECOLOGICAL INFORMATION

#### Toxicity

D-Lead Test Kit Solution 1	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE SOURCE
	Not Available	Not Available	Not Available	Not Not Available Available
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE SOURCE
acetic acid solution, 10-80%	Not Available	Not Available	Not Available	Not Not Available 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			

#### DO NOT discharge into sewer or waterways.

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients
Bioaccumulative potential		
Ingredient	Bioaccumulation	
	No Data available for all ingredients	

## Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

## SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods	
Product / Packaging disposal	<ul> <li>DO NOT allow wash water from cleaning or process equipment to enter drains.</li> <li>It may be necessary to collect all wash water for treatment before disposal.</li> <li>In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>Where in doubt contact the responsible authority.</li> <li>Recycle wherever possible.</li> <li>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.</li> <li>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).</li> <li>Decontaminate empty containers.</li> </ul>

#### **SECTION 14 TRANSPORT INFORMATION**

Labels Required		
Marine Pollutant	NO	
HAZCHEM	Not Applicable	

#### Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

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

Not Applicable

## SECTION 15 REGULATORY INFORMATION

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

ACETIC ACID SOLUTION, 10-80% IS FOUND ON THE FOLLOWING REGULATORY LISTS

## **D-Lead Test Kit Solution 1**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Inventory of Chemical Substances (AICS) Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -Schedule 2 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

#### **National Inventory Status**

National Inventory	Status
Australia - AICS	Yes
Canada - DSL	Yes
Canada - NDSL	No (acetic acid solution, 10-80%)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - ARIPS	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

## **SECTION 16 OTHER INFORMATION**

Revision Date	28/01/2020
Initial Date	28/01/2020

#### 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.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

#### Definitions and 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 This document is copyright.

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