

Kit components

Product code	Description
QS420-KIT-001	QS-Works™ ONE Pesticide 420™ Reagent Kit

Components:

QS-CAL-01	Stock Calibrant
QS-ICV-01	ICV Calibrant
QS-IS-01	Internal Standard
QS-LCS-01	Stock Calibrator 10 ppm

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Stock Calibrant
- **Product number:** QS-CAL-01
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category** PC21 Laboratory chemicals
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
PerkinElmer Inc
549 Albany Street
Boston, MA 02118
- **Further information obtainable from:**
US Technical Support
800-762-4000
- **1.4 Emergency telephone number:**
If inside USA, call CHEMTREC at 1-800-424-9300
If outside USA, call CHEMTREC at 1-703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **2.1.1 Classification according to Regulation (EC) No 1272/2008**
- Flam. Liq. 2 H225 Highly flammable liquid and vapour.
- Acute Tox. 4 H312 Harmful in contact with skin.
- Acute Tox. 4 H332 Harmful if inhaled.
- Eye Irrit. 2 H319 Causes serious eye irritation.
- Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.
- **2.1.3 Additional information:** For the wording of the relevant risk phrases refer to section 16.

-
- **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
 - **Hazard pictograms**



- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
acetonitrile
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H312+H332 Harmful in contact with skin or if inhaled.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Stock Calibrant

(Contd. of page 1)

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 75-05-8 EINECS: 200-835-2 Index number: 608-001-00-3	acetonitrile Flam. Liq. 2, H225; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319	75-100%
CAS: 62-73-7 EINECS: 200-547-7 Index number: 015-019-00-X	dichlorvos (ISO) Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; Aquatic Acute 1, H400; Skin Sens. 1, H317	<0.1%
CAS: 121-75-5 EINECS: 204-497-7 Index number: 015-041-00-X	malathion (ISO) Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Sens. 1, H317	<0.1%
CAS: 300-76-5 EINECS: 206-098-3 Index number: 015-055-00-6	naled (ISO) Aquatic Acute 1, H400; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319	<0.1%
CAS: 2921-88-2 EINECS: 220-864-4 Index number: 015-084-00-4	chlorpyrifos (ISO) Acute Tox. 3, H301; Acute Tox. 3, H311; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 7786-34-7 EINECS: 232-095-1 Index number: 015-020-00-5	mevinphos (ISO) Acute Tox. 2, H300; Acute Tox. 1, H310; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 52645-53-1 EINECS: 258-067-9 Index number: 613-058-00-2	permethrin (ISO) Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317	<0.1%
CAS: 57960-19-7 Index number: 606-144-00-6	acequinocyl (ISO) STOT SE 1, H370; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317	<0.1%
CAS: 68359-37-5 EINECS: 269-855-7 Index number: 607-253-00-1	alpha-cyano-4-fluoro-3-phenoxybenzyl-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate Acute Tox. 2, H300; Acute Tox. 3, H331; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 71751-41-2 Index number: 606-143-00-0	abamectin (combination of avermectin B1a and avermectin B1b) (ISO) Acute Tox. 2, H300; Acute Tox. 1, H330; Repr. 2, H361d; STOT RE 1, H372; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 72490-01-8 EINECS: 276-696-7 Index number: 006-086-00-6	ethyl[2-(4-phenoxyphenoxy)ethyl]carbamate Carc. 2, H351; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Stock Calibrant

(Contd. of page 2)

CAS: 80844-07-1 ELINCS: 407-980-2 Index number: 604-091-00-3	Etofenprox (ISO) ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Lact., H362	<0.1%
CAS: 82657-04-3 Index number: 607-699-00-7	Bifenthrin (ISO) ⚠ Acute Tox. 2, H300; Acute Tox. 3, H331; ⚠ Carc. 2, H351; STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sens. 1B, H317	<0.1%
CAS: 96489-71-3 ELINCS: 405-700-3 Index number: 613-149-00-7	2-tert-butyl-5-(4-tert-butylbenzylthio)-4-chloropyridazin-3(2H)-one ⚠ Acute Tox. 3, H301; Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 120068-37-3 ELINCS: 424-610-5 Index number: 608-055-00-8	fipronil (ISO) ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%

· **Additional information:** For the wording of the relevant risk phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 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: If symptoms persist consult doctor.

· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· For safety reasons unsuitable extinguishing agents: Water with full jet

· 5.2 Special hazards arising from the substance or mixture No further relevant information available.

· 5.3 Advice for firefighters

· Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Stock Calibrant

(Contd. of page 3)

- **6.2 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.
- **6.3 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.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and containers:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.

· Ingredients with limit values that require monitoring at the workplace:
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75-05-8 acetonitrile (75-100%)

IOELV	Long-term value: 70 mg/m ³ , 40 ppm
	Skin

- **8.2 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.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Stock Calibrant

(Contd. of page 4)

Suitable respiratory protective device recommended.

· **Protection of hands:**



Protective gloves

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

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

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

· Form:	Liquid
· Colour:	According to product specification
· Odour:	Characteristic
· Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· Melting point/freezing point:	-46 °C
· Initial boiling point and boiling range:	Undetermined.

· **Flash point:** 5 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 525 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

· Lower:	4.4 Vol %
· Upper:	16 Vol %

· **Vapour pressure at 20 °C:** 97 hPa

· **Density at 20 °C:** 0.7822 g/cm³

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Stock Calibrant

(Contd. of page 5)

· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	100.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Harmful in contact with skin or if inhaled.

· **LD/LC50 values relevant for classification:**

75-05-8 acetonitrile

Oral	LD50	2,730 mg/kg (rat)
Dermal	LD50	1,250 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Stock Calibrant

(Contd. of page 6)

· **Aspiration hazard** Based on available data, the classification criteria are not met.



SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Hand over to hazardous waste disposers.
Must be specially treated adhering to official regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|---|
| · 14.1 UN-Number | UN1993 |
| · ADR, IMDG, IATA | |
| · 14.2 UN proper shipping name | 1993 FLAMMABLE LIQUID, N.O.S. (ACETONITRILE), ENVIRONMENTALLY HAZARDOUS |
| · ADR | FLAMMABLE LIQUID, N.O.S. (ACETONITRILE, Bifenthrin (ISO)), MARINE POLLUTANT |
| · IMDG | FLAMMABLE LIQUID, N.O.S. (ACETONITRILE) |
| · IATA | |
| · 14.3 Transport hazard class(es) | |
| · ADR, IMDG | |
|   | |
| · Class | 3 Flammable liquids. |

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31


Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Stock Calibrant

(Contd. of page 7)

· Label	3

· IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Hazard identification number (Kemler code):	33
· EMS Number:	F-E,S-E
· Segregation groups	Heavy metals and their salts (including their organometallic compounds)
· Stowage Category	B
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E

· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (ACETONITRILE), 3, II, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**
E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

(Contd. on page 9)

EU

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Stock Calibrant

(Contd. of page 8)

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· Regulation (EU) No 649/2012		
62-73-7	dichlorvos (ISO)	Annex I Part 1 Annex I Part 2
121-75-5	malathion (ISO)	Annex I Part 1
300-76-5	naled (ISO)	Annex I Part 1 Annex I Part 2
52645-53-1	permethrin (ISO)	Annex I Part 1
68359-37-5	alpha-cyano-4-fluoro-3-phenoxybenzyl-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	Annex I Part 1
120068-37-3	fipronil (ISO)	Annex I Part 1 Annex I Part 2

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

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

SECTION 16: Other information

The information provided in this Safety Data Sheet is based on our present knowledge, and believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be considered a warranty or quality specification. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards which exist. PerkinElmer, Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Stock Calibrant

(Contd. of page 9)

*Acute Tox. 3: Acute toxicity – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Acute Tox. 1: Acute toxicity – Category 1**Acute Tox. 2: Acute toxicity – Category 2**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**Skin Sens. 1: Skin sensitisation – Category 1**Skin Sens. 1B: Skin sensitisation – Category 1B**Carc. 2: Carcinogenicity – Category 2**Lact.: Reproductive toxicity – effects on or via lactation**Repr. 2: Reproductive toxicity – Category 2**STOT SE 1: Specific target organ toxicity (single exposure) – Category 1**STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1**STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

EU

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** ICV Calibrant
- **Product number:** QS-ICV-01
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category** PC21 Laboratory chemicals
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
PerkinElmer Inc
549 Albany Street
Boston, MA 02118
- **Further information obtainable from:**
US Technical Support
800-762-4000
- **1.4 Emergency telephone number:**
If inside USA, call CHEMTREC at 1-800-424-9300
If outside USA, call CHEMTREC at 1-703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **2.1.1 Classification according to Regulation (EC) No 1272/2008**
- Flam. Liq. 2 H225 Highly flammable liquid and vapour.
- Acute Tox. 4 H312 Harmful in contact with skin.
- Acute Tox. 4 H332 Harmful if inhaled.
- Eye Irrit. 2 H319 Causes serious eye irritation.
- Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.
- **2.1.3 Additional information:** For the wording of the relevant risk phrases refer to section 16.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
acetonitrile
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H312+H332 Harmful in contact with skin or if inhaled.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

(Contd. on page 2)

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Revision: 12.11.2021

Trade name: ICV Calibrant

(Contd. of page 1)

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 75-05-8 EINECS: 200-835-2 Index number: 608-001-00-3	acetonitrile Flam. Liq. 2, H225; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319	75-100%
CAS: 62-73-7 EINECS: 200-547-7 Index number: 015-019-00-X	dichlorvos (ISO) Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; Aquatic Acute 1, H400; Skin Sens. 1, H317	<0.1%
CAS: 121-75-5 EINECS: 204-497-7 Index number: 015-041-00-X	malathion (ISO) Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Sens. 1, H317	<0.1%
CAS: 300-76-5 EINECS: 206-098-3 Index number: 015-055-00-6	naled (ISO) Aquatic Acute 1, H400; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319	<0.1%
CAS: 2921-88-2 EINECS: 220-864-4 Index number: 015-084-00-4	chlorpyrifos (ISO) Acute Tox. 3, H301; Acute Tox. 3, H311; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 7786-34-7 EINECS: 232-095-1 Index number: 015-020-00-5	mevinphos (ISO) Acute Tox. 2, H300; Acute Tox. 1, H310; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 52645-53-1 EINECS: 258-067-9 Index number: 613-058-00-2	permethrin (ISO) Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317	<0.1%
CAS: 57960-19-7 Index number: 606-144-00-6	acequinocyl (ISO) STOT SE 1, H370; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317	<0.1%
CAS: 68359-37-5 EINECS: 269-855-7 Index number: 607-253-00-1	alpha-cyano-4-fluoro-3-phenoxybenzyl-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate Acute Tox. 2, H300; Acute Tox. 3, H331; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 71751-41-2 Index number: 606-143-00-0	abamectin (combination of avermectin B1a and avermectin B1b) (ISO) Acute Tox. 2, H300; Acute Tox. 1, H330; Repr. 2, H361d; STOT RE 1, H372; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 72490-01-8 EINECS: 276-696-7 Index number: 006-086-00-6	ethyl[2-(4-phenoxyphenoxy)ethyl]carbamate Carc. 2, H351; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: ICV Calibrant

(Contd. of page 2)

CAS: 80844-07-1 ELINCS: 407-980-2 Index number: 604-091-00-3	Etofenprox (ISO) ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Lact., H362	<0.1%
CAS: 82657-04-3 Index number: 607-699-00-7	Bifenthrin (ISO) ⚠ Acute Tox. 2, H300; Acute Tox. 3, H331; ⚠ Carc. 2, H351; STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sens. 1B, H317	<0.1%
CAS: 96489-71-3 ELINCS: 405-700-3 Index number: 613-149-00-7	2-tert-butyl-5-(4-tert-butylbenzylthio)-4-chloropyridazin-3(2H)-one ⚠ Acute Tox. 3, H301; Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 120068-37-3 ELINCS: 424-610-5 Index number: 608-055-00-8	fipronil (ISO) ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%

· **Additional information:** For the wording of the relevant risk phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 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: If symptoms persist consult doctor.

· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· For safety reasons unsuitable extinguishing agents: Water with full jet

· 5.2 Special hazards arising from the substance or mixture No further relevant information available.

· 5.3 Advice for firefighters

· Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: **ICV Calibrant**

(Contd. of page 3)

- **6.2 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.
- **6.3 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.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and containers:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.

Ingredients with limit values that require monitoring at the workplace:	
75-05-8 acetonitrile (75-100%)	
IOELV	Long-term value: 70 mg/m ³ , 40 ppm
	Skin

- **8.2 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.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: ICV Calibrant

(Contd. of page 4)

Suitable respiratory protective device recommended.

· **Protection of hands:**



Protective gloves

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

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

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

· Form:	Liquid
· Colour:	According to product specification
· Odour:	Characteristic
· Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· Melting point/freezing point:	-46 °C
· Initial boiling point and boiling range:	Undetermined.

· **Flash point:** 5 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 525 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

· Lower:	4.4 Vol %
· Upper:	16 Vol %

· **Vapour pressure at 20 °C:** 97 hPa

· **Density at 20 °C:** 0.7822 g/cm³

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: ICV Calibrant

(Contd. of page 5)

· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	100.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Harmful in contact with skin or if inhaled.

· **LD/LC50 values relevant for classification:**

75-05-8 acetonitrile

Oral	LD50	2,730 mg/kg (rat)
Dermal	LD50	1,250 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: *ICV Calibrant*

(Contd. of page 6)

· **Aspiration hazard** Based on available data, the classification criteria are not met.



SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Hand over to hazardous waste disposers.
Must be specially treated adhering to official regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|---|
| · 14.1 UN-Number | UN1993 |
| · ADR, IMDG, IATA | |
| · 14.2 UN proper shipping name | 1993 FLAMMABLE LIQUID, N.O.S. (ACETONITRILE), ENVIRONMENTALLY HAZARDOUS |
| · ADR | FLAMMABLE LIQUID, N.O.S. (ACETONITRILE, Bifenthrin (ISO)), MARINE POLLUTANT |
| · IMDG | FLAMMABLE LIQUID, N.O.S. (ACETONITRILE) |
| · IATA | |
| · 14.3 Transport hazard class(es) | |
| · ADR, IMDG | |
|   | |
| · Class | 3 Flammable liquids. |

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31


Printing date 25.05.2022

Revision: 12.11.2021

Trade name: *ICV Calibrant*

(Contd. of page 7)

· Label	3

· IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Hazard identification number (Kemler code):	33
· EMS Number:	F-E,S-E
· Segregation groups	Heavy metals and their salts (including their organometallic compounds)
· Stowage Category	B
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

· Transport/Additional information:	

· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E

· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (ACETONITRILE), 3, II, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**
E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

(Contd. on page 9)

EU

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: ICV Calibrant

(Contd. of page 8)

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· Regulation (EU) No 649/2012		
62-73-7	dichlorvos (ISO)	Annex I Part 1 Annex I Part 2
121-75-5	malathion (ISO)	Annex I Part 1
300-76-5	naled (ISO)	Annex I Part 1 Annex I Part 2
52645-53-1	permethrin (ISO)	Annex I Part 1
68359-37-5	alpha-cyano-4-fluoro-3-phenoxybenzyl-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	Annex I Part 1
120068-37-3	fipronil (ISO)	Annex I Part 1 Annex I Part 2

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

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

SECTION 16: Other information

The information provided in this Safety Data Sheet is based on our present knowledge, and believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be considered a warranty or quality specification. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards which exist. PerkinElmer, Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: ICV Calibrant

(Contd. of page 9)

*Acute Tox. 3: Acute toxicity – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Acute Tox. 1: Acute toxicity – Category 1**Acute Tox. 2: Acute toxicity – Category 2**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**Skin Sens. 1: Skin sensitisation – Category 1**Skin Sens. 1B: Skin sensitisation – Category 1B**Carc. 2: Carcinogenicity – Category 2**Lact.: Reproductive toxicity – effects on or via lactation**Repr. 2: Reproductive toxicity – Category 2**STOT SE 1: Specific target organ toxicity (single exposure) – Category 1**STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1**STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

EU

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Internal Standard
- **Product number:** QS-IS-01
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category** PC21 Laboratory chemicals
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
PerkinElmer Inc
549 Albany Street
Boston, MA 02118
- **Further information obtainable from:**
US Technical Support
800-762-4000
- **1.4 Emergency telephone number:**
If inside USA, call CHEMTREC at 1-800-424-9300
If outside USA, call CHEMTREC at 1-703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **2.1.1 Classification according to Regulation (EC) No 1272/2008**
- Flam. Liq. 2 H225 Highly flammable liquid and vapour.
- Acute Tox. 4 H312 Harmful in contact with skin.
- Acute Tox. 4 H332 Harmful if inhaled.
- Eye Irrit. 2 H319 Causes serious eye irritation.
- Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.
- **2.1.3 Additional information:** For the wording of the relevant risk phrases refer to section 16.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
acetonitrile
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H312+H332 Harmful in contact with skin or if inhaled.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Internal Standard

(Contd. of page 1)

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 75-05-8 EINECS: 200-835-2 Index number: 608-001-00-3	acetonitrile Flam. Liq. 2, H225; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319	75-100%
	Acequinocyl-d25 STOT SE 1, H370; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317	<0.1%
CAS: 203645-53-8 EINECS: 200-547-7 Index number: 015-019-00-X	dichlorvos-d6 (ISO) Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; Aquatic Acute 1, H400; Skin Sens. 1, H317	<0.1%
CAS: 285138-81-0 EINECS: 220-864-4 Index number: 015-084-00-4	Chlorpyrifos (Diethyl-d10) (ISO) Acute Tox. 3, H301; Acute Tox. 3, H311; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
	fenoxy carb-d3 Carc. 2, H351; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 1216605-57-0 EINECS: 206-098-3 Index number: 015-055-00-6	Naled-d6 (ISO) Aquatic Acute 1, H400; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319	<0.1%
CAS: 1794760-19-2 EINECS: 258-067-9 Index number: 613-058-00-2	permethrin-d5 (ISO) Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317	<0.1%
CAS: 1189877-72-2 EINECS: 204-497-7 Index number: 015-041-00-X	malathion-d6 (ISO) Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Sens. 1, H317	<0.1%
ELINCS: 424-610-5 Index number: 608-055-00-8	fipronil-13C2 15N2 (ISO) Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT RE 1, H372; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
ELINCS: 405-700-3 Index number: 613-149-00-7	2-tert-butyl-5-(4-tert-butylbenzylthio)-4-chloropyridazin-3(2H)-one-d13 Acute Tox. 3, H301; Acute Tox. 3, H331; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: *Internal Standard*

(Contd. of page 2)

· **Additional information:** For the wording of the relevant risk phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 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:** If symptoms persist consult doctor.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **6.2 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.

· **6.3 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.

· **6.4 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.

EU

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Internal Standard

(Contd. of page 3)

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and containers:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**

75-05-8 acetonitrile (75-100%)

IOELV	Long-term value: 70 mg/m ³ , 40 ppm
	Skin

- **8.2 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.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Suitable respiratory protective device recommended.
- **Protection of hands:**



Protective gloves

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

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Internal Standard

(Contd. of page 4)

- **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

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Liquid
Colour: According to product specification

- **Odour:** Characteristic

- **Odour threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/freezing point: -46 °C
Initial boiling point and boiling range: Undetermined.

- **Flash point:** 5 °C

- **Flammability (solid, gas):** Not applicable.

- **Ignition temperature:** 525 °C

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**

Lower: 4.4 Vol %
Upper: 16 Vol %

- **Vapour pressure at 20 °C:** 97 hPa

- **Density at 20 °C:** 0.7822 g/cm³

- **Relative density** Not determined.

- **Vapour density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

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

- **Viscosity:**

Dynamic at 20 °C: 0.39 mPas

Kinematic: Not determined.

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Internal Standard

(Contd. of page 5)

· Solvent content:	
Organic solvents:	0.0 %
· Solids content:	
	0.0 %
· 9.2 Other information	
	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- **Acute toxicity**
Harmful in contact with skin or if inhaled.

· LD/LC50 values relevant for classification:

75-05-8 acetonitrile

Oral	LD50	2,730 mg/kg (rat)
Dermal	LD50	1,250 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Internal Standard




(Contd. of page 6)

- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Hand over to hazardous waste disposers.
Must be specially treated adhering to official regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA | <p align="center">UN1993</p> |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG · IATA | <p align="center">1993 FLAMMABLE LIQUID, N.O.S. (ACETONITRILE), ENVIRONMENTALLY HAZARDOUS
FLAMMABLE LIQUID, N.O.S. (ACETONITRILE, Chlorpyrifos (Diethyl-d10) (ISO)), MARINE POLLUTANT
FLAMMABLE LIQUID, N.O.S. (ACETONITRILE)</p> |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, IMDG | <div style="display: flex; align-items: center; justify-content: center;">   </div> |
| <ul style="list-style-type: none"> · Class · Label | <p align="center">3 Flammable liquids.
3</p> |
| <ul style="list-style-type: none"> · IATA | <div style="display: flex; align-items: center; justify-content: center;">  </div> |
| <ul style="list-style-type: none"> · Class · Label | <p align="center">3 Flammable liquids.
3</p> |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | <p align="center">II</p> |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): | <p align="center">Symbol (fish and tree)
Symbol (fish and tree)</p> |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user | <p align="center">Warning: Flammable liquids.</p> |

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Internal Standard

(Contd. of page 7)

· Hazard identification number (Kemler code):	33
· EMS Number:	F-E,S-E
· Segregation groups	Heavy metals and their salts (including their organometallic compounds)
· Stowage Category	B
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (ACETONITRILE), 3, II, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**
E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **Regulation (EU) No 649/2012**

203645-53-8	dichlorvos-d6 (ISO)	Annex I Part 1 Annex I Part 2
1216605-57-0	Naled-d6 (ISO)	Annex I Part 1 Annex I Part 2
1794760-19-2	permethrin-d5 (ISO)	Annex I Part 1
1189877-72-2	malathion-d6 (ISO)	Annex I Part 1
	fipronil-13C2 15N2 (ISO)	Annex I Part 1 Annex I Part 2

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

(Contd. on page 9)

EU

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 12.11.2021

Trade name: Internal Standard

(Contd. of page 8)

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

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

SECTION 16: Other information

The information provided in this Safety Data Sheet is based on our present knowledge, and believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be considered a warranty or quality specification. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards which exist. PerkinElmer, Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 2: Acute toxicity – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Stock Calibrator 10 ppm
- **Product number:** QS-LCS-01
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category** PC21 Laboratory chemicals
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
PerkinElmer Inc
549 Albany Street
Boston, MA 02118
- **Further information obtainable from:**
US Technical Support
800-762-4000
- **1.4 Emergency telephone number:**
If inside USA, call CHEMTREC at 1-800-424-9300
If outside USA, call CHEMTREC at 1-703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **2.1.1 Classification according to Regulation (EC) No 1272/2008**
- Flam. Liq. 2 H225 Highly flammable liquid and vapour.
- Acute Tox. 4 H312 Harmful in contact with skin.
- Acute Tox. 4 H332 Harmful if inhaled.
- Eye Irrit. 2 H319 Causes serious eye irritation.
- Aquatic Acute 1 H400 Very toxic to aquatic life.
- Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.
- **2.1.3 Additional information:** For the wording of the relevant risk phrases refer to section 16.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS07 GHS09

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
acetonitrile
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H312+H332 Harmful in contact with skin or if inhaled.
H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 24.05.2022

Trade name: Stock Calibrator 10 ppm

(Contd. of page 1)

- P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 75-05-8 EINECS: 200-835-2 Index number: 608-001-00-3	acetonitrile Flam. Liq. 2, H225; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319	75-100%
CAS: 62-73-7 EINECS: 200-547-7 Index number: 015-019-00-X	dichlorvos (ISO) Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; Aquatic Acute 1, H400; Skin Sens. 1, H317	<0.1%
CAS: 63-25-2 EINECS: 200-555-0 Index number: 006-011-00-7	carbaryl (ISO) Carc. 2, H351; Aquatic Acute 1, H400; Acute Tox. 4, H302; Acute Tox. 4, H332	<0.1%
CAS: 121-75-5 EINECS: 204-497-7 Index number: 015-041-00-X	malathion (ISO) Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Sens. 1, H317	<0.1%
CAS: 298-00-0 EINECS: 206-050-1 Index number: 015-035-00-7	parathion -methyl (ISO) Flam. Liq. 3, H226; Acute Tox. 2, H300; Acute Tox. 3, H311; Acute Tox. 2, H330; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 300-76-5 EINECS: 206-098-3 Index number: 015-055-00-6	naled (ISO) Aquatic Acute 1, H400; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319	<0.1%
CAS: 732-11-6 EINECS: 211-987-4 Index number: 015-101-00-5	phosmet (ISO) Acute Tox. 3, H301; Repr. 2, H361f; STOT SE 1, H370; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H312; Acute Tox. 4, H332	<0.1%
CAS: 2921-88-2 EINECS: 220-864-4 Index number: 015-084-00-4	chlorpyrifos (ISO) Acute Tox. 3, H301; Acute Tox. 3, H311; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 7786-34-7 EINECS: 232-095-1 Index number: 015-020-00-5	mevinphos (ISO) Acute Tox. 2, H300; Acute Tox. 1, H310; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 16752-77-5 EINECS: 240-815-0 Index number: 006-045-00-2	methomyl Acute Tox. 2, H300; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 24.05.2022

Trade name: Stock Calibrator 10 ppm

(Contd. of page 2)

CAS: 52645-53-1 EINECS: 258-067-9 Index number: 613-058-00-2	permethrin (ISO) ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317	<0.1%
CAS: 57960-19-7 Index number: 606-144-00-6	acequinocyl (ISO) ⚠ STOT SE 1, H370; STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sens. 1, H317	<0.1%
CAS: 68359-37-5 EINECS: 269-855-7 Index number: 607-253-00-1	alpha-cyano-4-fluoro-3-phenoxybenzyl-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate ⚠ Acute Tox. 2, H300; Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 71751-41-2 Index number: 606-143-00-0	abamectin (combination of avermectin B1a and avermectin B1b) (ISO) ⚠ Acute Tox. 2, H300; Acute Tox. 1, H330; ⚠ Repr. 2, H361d; STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 72490-01-8 EINECS: 276-696-7 Index number: 006-086-00-6	ethyl[2-(4-phenoxyphenoxy)ethyl]carbamate ⚠ Carc. 2, H351; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 80844-07-1 ELINCS: 407-980-2 Index number: 604-091-00-3	Etofenprox (ISO) ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Lact., H362	<0.1%
CAS: 82657-04-3 Index number: 607-699-00-7	Bifenthrin (ISO) ⚠ Acute Tox. 2, H300; Acute Tox. 3, H331; ⚠ Carc. 2, H351; STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sens. 1B, H317	<0.1%
CAS: 96489-71-3 ELINCS: 405-700-3 Index number: 613-149-00-7	2-tert-butyl-5-(4-tert-butylbenzylthio)-4-chloropyridazin-3(2H)-one ⚠ Acute Tox. 3, H301; Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 111988-49-9 Index number: 613-325-00-3	thiacloprid ⚠ Acute Tox. 3, H301; ⚠ Carc. 2, H351; Repr. 1B, H360FD; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H332; STOT SE 3, H336	<0.1%
CAS: 118134-30-8 Index number: 612-150-00-X	spiroxamine ⚠ Repr. 2, H361d; STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Skin Sens. 1, H317	<0.1%
CAS: 120068-37-3 ELINCS: 424-610-5 Index number: 608-055-00-8	fipronil (ISO) ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 122453-73-0 Index number: 608-034-00-3	chlorfenapyr ⚠ Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302	<0.1%
CAS: 153233-91-1 Index number: 603-199-00-8	etoxazol ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%

· **Additional information:** For the wording of the relevant risk phrases refer to section 16.

EU

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 24.05.2022

Trade name: Stock Calibrator 10 ppm

(Contd. of page 3)

SECTION 4: First aid measures

· 4.1 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: If symptoms persist consult doctor.

· 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· For safety reasons unsuitable extinguishing agents: Water with full jet

· 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

· 5.3 Advice for firefighters

· Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· 6.2 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.

· 6.3 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.

· 6.4 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.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 24.05.2022

Trade name: Stock Calibrator 10 ppm

(Contd. of page 4)

- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and containers:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.

· Ingredients with limit values that require monitoring at the workplace:	
75-05-8 acetonitrile (75-100%)	
IOELV	Long-term value: 70 mg/m ³ , 40 ppm
	Skin

- **8.2 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.

- **Respiratory protection:**

- In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- Suitable respiratory protective device recommended.

- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- 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 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 24.05.2022

Trade name: Stock Calibrator 10 ppm

(Contd. of page 5)

· Eye protection:



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Liquid
· Colour:	Yellow tint
· Odour:	Characteristic
· Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

· Melting point/freezing point:	-46 °C
· Initial boiling point and boiling range:	Undetermined.

· Flash point: 5 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 525 °C

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

· Lower:	4.4 Vol %
· Upper:	16 Vol %

· Vapour pressure at 20 °C: 97 hPa

· Density at 20 °C: 0.7822 g/cm³

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

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

· Viscosity:

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· Solvent content:

· Organic solvents: 0.0 %

· Solids content: 100.0 %

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 24.05.2022

Trade name: Stock Calibrator 10 ppm

(Contd. of page 6)

· **9.2 Other information**

No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Harmful in contact with skin or if inhaled.

· **LD/LC50 values relevant for classification:**

75-05-8 acetonitrile

Oral	LD50	2,730 mg/kg (rat)
Dermal	LD50	1,250 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 24.05.2022

Trade name: Stock Calibrator 10 ppm

(Contd. of page 7)

· 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Hand over to hazardous waste disposers.

Must be specially treated adhering to official regulations.

· Uncleaned packaging:

· Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· ADR, IMDG, IATA

UN1993

· 14.2 UN proper shipping name

· ADR

1993 FLAMMABLE LIQUID, N.O.S. (ACETONITRILE), ENVIRONMENTALLY HAZARDOUS

· IMDG

FLAMMABLE LIQUID, N.O.S. (ACETONITRILE, Bifenthrin (ISO)), MARINE POLLUTANT

· IATA

FLAMMABLE LIQUID, N.O.S. (ACETONITRILE)

· 14.3 Transport hazard class(es)

· ADR, IMDG



· Class

3 Flammable liquids.

· Label

3

· IATA



· Class

3 Flammable liquids.

· Label

3

· 14.4 Packing group

· ADR, IMDG, IATA

II

· 14.5 Environmental hazards:

· Marine pollutant:

Symbol (fish and tree)

· Special marking (ADR):

Symbol (fish and tree)

· 14.6 Special precautions for user

Warning: Flammable liquids.

· Hazard identification number (Kemler code):

33

· EMS Number:

F-E,S-E

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 24.05.2022

Trade name: Stock Calibrator 10 ppm

(Contd. of page 8)

· Segregation groups	Heavy metals and their salts (including their organometallic compounds)
· Stowage Category	B
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	

· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E

· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (ACETONITRILE), 3, II, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category
E1 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

· Regulation (EU) No 649/2012		
62-73-7	dichlorvos (ISO)	Annex I Part 1 Annex I Part 2
63-25-2	carbaryl (ISO)	Annex I Part 1 Annex I Part 2
121-75-5	malathion (ISO)	Annex I Part 1
298-00-0	parathion -methyl (ISO)	Annex I Part 1 Annex I Part 2 Annex I Part 3
300-76-5	naled (ISO)	Annex I Part 1 Annex I Part 2
16752-77-5	methomyl	Annex I Part 1
52645-53-1	permethrin (ISO)	Annex I Part 1

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 24.05.2022

Trade name: Stock Calibrator 10 ppm

(Contd. of page 9)

68359-37-5	<i>alpha-cyano-4-fluoro-3-phenoxybenzyl-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate</i>	Annex I Part 1
120068-37-3	<i>fipronil (ISO)</i>	Annex I Part 1 Annex I Part 2
122453-73-0	<i>chlorfenapyr</i>	Annex I Part 1 Annex I Part 2

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

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

SECTION 16: Other information

The information provided in this Safety Data Sheet is based on our present knowledge, and believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be considered a warranty or quality specification. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards which exist. PerkinElmer, Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 1: Acute toxicity – Category 1

Acute Tox. 2: Acute toxicity – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

(Contd. on page 11)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2022

Revision: 24.05.2022

Trade name: Stock Calibrator 10 ppm

(Contd. of page 10)

*Carc. 2: Carcinogenicity – Category 2**Lact.: Reproductive toxicity – effects on or via lactation**Repr. 1B: Reproductive toxicity – Category 1B**Repr. 2: Reproductive toxicity – Category 2**Repr. 2: Reproductive toxicity – Category 2**STOT SE 1: Specific target organ toxicity (single exposure) – Category 1**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1**STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1*

EU