

SAFETY DATA SHEET

SDS No. : 105730EU-2
 Issue Date : 24 Jun. 2019
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 Ver.2.0

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : CALIBRATOR 90 Diluent

1.2 Relevant identified uses of the substance or mixture and uses advised against

The product is applicable for the following purpose of use only. Use exclusive reagents for ADAMS A1c HA-8190V.

1.3 Details of the supplier of the safety data sheet

ARKRAY FACTORY, Inc.

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1.4 Emergency telephone number

Emergency phone : +31-20-545-2450 (9:00~17:00)

2. Hazards Identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to REGULATION (EC) No 1272/2008.

2.2 Label elements

The product does not need to be labeled in accordance with EC directives or respective national laws.

2.3 Other hazards

No relevant information.

3. Composition/information on ingredients

3.2 Mixtures

Component	Conc. [wt%]	Formula	EINECS No.	CAS No.	Classification Regulation(EC) 1272/2008(CLP)
2-Phenoxyethanol	< 1	C ₈ H ₁₀ O ₂	204-589-7	122-99-6	Acute Tox. 4; H302 Eye Irrit. 2; H319

Polyoxyethylated Octyl phenol	< 0.1	(C ₂ H ₄ O) _n C ₁₄ H ₂₂ O	-	9002-93-1	Acute Tox. 4; H302 Skin Irrit.2;H315 Eye Dam.1;H318 Aquatic Chronic 2; H411
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4. First aid measures

4.1 Description of first aid measures

General notes

Consult a physician. Show this safety data sheet to the doctor in attendance.

Following inhalation

Remove to fresh air and keep comfortable for breathing.

Call a doctor/physician if respirative symptom appears.

Following skin contact

Wash immediately with plenty of water and soap.

Get medical attention if skin irritation or rash occurs.

Wash contaminated clothing before reuse.

Following eye contact

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Call a doctor/physician if eye irritation persists.

Following ingestion

Rinse mouth.

Get medical advice/attention if you feel unwell.

Self-protection of the first aider

Wear protective equipment to avoid contact with skin and eyes.

4.2 Most important symptoms and effects, both acute and delayed

No relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No relevant information available.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

This product is aqueous solution and non-combustible.

Unsuitable extinguishing media

Not specified

5.2 Special hazards arising from the substance or mixture

May form irritating, toxic or corrosive gas in fire.

5.3 Advice for firefighters

Special firefighting procedures

Remove movable containers from fire occurrence area if safe to do so.

Fire-extinguishing work is done from the windward as possible.

If immovable, cool containers and surrounding area with water spray.

Special protective equipment for firefighters

When extinguishing fire, be sure to wear suitable personal protective equipment (gloves, goggle, mask, etc.).

6. Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****6.1.1 For non-emergency personnel**

A worker should wear suitable personal protective equipment (see section 8. A worker should wear suitable personal protective equipment (see section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION) to avoid eye or skin contact, or inhalation of gas, mist, etc.

Stay away from the contaminated area.

6.1.2 For emergency responder

Wear suitable protective equipment.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and material for containment and cleaning up**6.3.1 For containment:**

Stop leak if possible without risk.

6.3.2 For cleans up:

Wash away the area with large amount of water after collecting spilled material.

Or wipe up before drying. Wash waste cloth used for cleaning with large amount of water.

6.3.3 Other information:

Avoid contact with acid.

6.4 Reference to other sections

For protective equipment see Section 8.

For disposal see Section 13.

7. Handling and storage**7.1 Precautions for safe handling****Preventive measures (Exposure Control for handling personnel)**

Use suitable protective equipment. For personal protection see Section 8.

Wash hands and gargle after handling. Do NOT eat, drink, or smoke during handling.

Technical measures

Perform engineering control listed in section 8.

EXPOSURE CONTROLS / PERSONAL PROTECTION and wear personal protective equipment.

Local ventilation / General ventilation

Handle only in the open air or a well ventilated area.

Precautions on safe handling

Avoid contact with acid.

Do not handle containers roughly (falling, dropping, giving a shock, etc.).

7.2 Conditions for safe storage, including any incompatibilities**Technical measures**

Store only in well-ventilated areas.

Incompatible materials

Avoid contact with acid.

Storage conditions

Protect against direct sunlight.

Keep container tightly closed in 2 to 30°C.

Keep the residuals only in the original container.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure controls/personal protection**8.1 Control parameters**

Not set up.

8.2 Exposure controls**8.2.1 Appropriate engineering controls**

It is desirable to install local exhaust ventilations.

Install eye wash station and safety shower in every work area this product is handled.

8.2.2 personal protection equipment:**8.2.2.1 Eye/face protection**

Wear safety goggles / face-shield.

8.2.2.2 Skin protection

Hand protection

Wear suitable impervious gloves.

Other skin protection:

Wear protective clothing, if necessary.

8.2.2.3 Respiratory protection

Wear suitable mask.

8.2.2.4 Thermal hazards

No information available.

8.2.3 Environmental exposure controls

For environmental exposure controls, see Section 6.2.

9. Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Physical state	liquid
Colour	Colorless
Odour	None
Odour threshold	No data available
Melting point/freezing point	No data available
Boiling point and boiling range	No data available
Flammability	No data available
Lower and upper explosion limit	No data available
Flash Point	No data available
Auto-ignition temperature	This product is aqueous solution and non-combustible.

Decomposition temperature	No data available
pH	7.3~7.7
Kinematic viscosity	No data available
Solubility	Water soluble
Partition coefficient n-octanol/water(log value)	No data available
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density	No data available
Particle characteristics	Not applicable

9.2 Other information

No further relevant information available.

10. Stability and reactivity

10.1 Reactivity

Stable under proper conditions.

10.2 Chemical stability

Stable under proper conditions.

10.3 Possibility of hazardous reactions

Stable under recommended storage conditions.

10.4 Conditions to avoid

Shock, heat

10.5 Incompatible materials

Store at a distance from incompatible materials.

10.6 Hazardous decomposition products

Does not decompose when used for intended uses.

11. Toxicological information

11.1 Information on hazard classes as defined in Regulation(EC) No 1272/2008

Acute toxicity	
Oral	Based on available data, the classification criteria are not met.(Mixture)
	orl-rat LD50:1260 mg/kg(2-Phenoxyethanol)
	orl-rat LD50:1800 mg/kg(Polyoxyethylated Octyl phenol)
Dermal	Based on available data, the classification criteria are not met.(Mixture)
Inhalation	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.(Mixture)
	skn-rbt 500 uL/24H MLD(Polyoxyethylated Octyl phenol)
Serious eye damage/irritation	Based on available data, the classification criteria are not met.(Mixture)
	eye-rbt 6 mg MOD(2-Phenoxyethanol)

	eye-rbt 10 uL/24H MOD(Polyoxyethylated Octyl phenol)
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
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.

11.2 Information on other hazards

No relevant information available.

12. Ecological information

12.1 Toxicity

Based on available data, the classification criteria are not met.(Mixture)

Fish: 96h LC50:24 mg/L (*Oryzias latipes*) (Polyoxyethylated Octyl phenol)

Crustacea: 48h EC50:14 mg/L (*Daphnia magna*)

Algae: 72h EC50:84 mg/L (*Selenastrum capricornutum*)

12.2 Persistence and degradability

Based on available data, the classification criteria are not met.

12.3 Bioaccumulative potential

Based on available data, the classification criteria are not met.

12.4 Mobility in soil

Based on available data, the classification criteria are not met.(Mixture)

Log Pow: 4.86 (Polyoxyethylated Octyl phenol)

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100.

12.7 Other adverse effects

No relevant information available.

13. Disposal considerations

13.1 Waste treatment methods

13.1.1 Product/Packaging disposal

If the product is unused, dilute the product with a large amount of water before disposing.

13.1.2 Waste treatment-relevant information

Remove the product from containers completely, and dispose of in accordance with the regulations.

13.1.3 Sewage disposal-relevant information

Do not dump this product into sewers, on the ground or into any body of water.

13.1.4 Other disposal recommendations

If used product, ask a licensed disposal company.
Observe all federal, state, and local environmental regulation.

14. Transport information

14.1 UN number or ID number

ADR/RID: N/A IMDG: N/A IATA: N/A

14.2 UN proper shipping name

ADR/RID: N/A IMDG: N/A IATA: N/A

14.3 Transport hazard class(es)

ADR/RID: N/A IMDG: N/A IATA: N/A

14.4 Packing group

ADR/RID: N/A IMDG: N/A IATA: N/A

14.5 Environmental hazards

ADR/RID: N/A IMDG Marine pollutant: N/A IATA: N/A

14.6 Special precautions for user

When transporting, make sure that there are no leaks in the container, load it so that it does not fall over, fall, or be damaged, and make sure to prevent it from collapsing.

14.7 Maritime transport in bulk according to IMO instruments

No relevant information available.

15. Regulatory information

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

(EC) No 1907/2006 (REACH)
(EC) No 1272/2008 (CLP)
(EU) No 453/2010
(EU) No 2015/ 830
(EU) 2020/878

15.2 Chemical safety assessment

No chemical safety assessment has been carried out.

16. Other information

The date of preparation and revision of the SDS

Ver.1.0	Prepared on 24 June 2019.	
Ver.2.0	Revised on 30 November 2021:	Revised a new format in accordance with Regulation(EU) 2020/878.

Key literature references

Package insert
IMDG Code
IATA Dangerous Goods Regulations

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Not applicable

Further information

The above information contained herein is based on the data available to us and is believed to be correct. However, ARKRAY, Inc. bears no warranty expresses or implies regarding the accuracy of these data or the results to be obtained from the use thereof.

ARKRAY, Inc. assumes no responsibility for injury caused from the use of the product described herein.