



Safety Data Sheet (SDS)

A2K Calibration Plates

Section 1: Identification

Product Name: Calibration Plates

Product Number: All products listed under "Calibration Plates," on www.a2kscientific.com

Manufacturer/Supplier: A2K Scientific

Address: 925 N. Stapley Drive, Mesa, AZ 85203

Emergency Phone Number: 911

Section 2: Hazard(s) Identification

Classification of the Substance or Mixture:

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Precautionary Statements:

Prevention:

- Always wear proper PPE when handling item

Storage:

- Store at -20°C when not in use

Section 3: Composition/Information on Ingredients

This product contains modified and unmodified deoxyribonucleic acid. The exact percentage is withheld as a trade secret in accordance with 29 CFR 1910.1200.

Section 4: First-Aid Measures

General Information: If in doubt, get medical attention promptly and show this SDS to the medical personnel.

Inhalation: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie, or belt. Get medical attention if symptoms are severe or persist.

Ingestion: Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.

Skin Contact: Rinse with water.

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Eye Contact: Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.

Protection of first aiders: First aid personnel should wear appropriate protective equipment during any rescue.

Most Important symptoms and effects, both acute and delayed:

General Information: The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation: No specific symptoms known.

Ingestion: No specific symptoms known.

Skin Contact: No specific symptoms known.

Eye Contact: No specific symptoms known. May be slightly irritating to eyes.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media: The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder, or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable Extinguishing Media: Do not use water jet as an extinguisher, as this will spread the fire.

Special Hazards arising from the substance or mixture:

Specific Hazards: None known.

Hazardous combustion products: Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

Advice for firefighters

Protective actions during firefighting: Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard firefighters clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

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Personal Precautions: Wear protective clothing as described in section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material.

Environmental Precautions

Environmental Precautions: Avoid discharge into drains or watercourses or onto the ground.

Methods and material for containment and cleaning up

Methods for Cleaning up: Wear protective clothing as described in section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see section 13.

Section 7: Handling and Storage

Precautions for safe handling

Usage precautions: Read and follow manufacturers recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs.

Advice on general occupational hygiene: Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage precautions: Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well-ventilated place. Keep containers upright. Protect containers from damage.

Storage class: Unspecified storage.

Specific end use(s): The identified uses of this product are detailed in Section 1.

Section 8: Exposure Controls/Personal Protection

Occupational exposure limits

Glycerol: Long-term exposure limit (8-hour TWA): WEL 10mg/m³ mist.

Proprietary: No exposure limits known for ingredient(s).

WEL = Workplace exposure limit.

Exposure Controls

Protective Equipment:



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Appropriate engineering controls: Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection: Tight-fitting safety glasses.

Hand protection: Wear protective gloves.

Other skin and body protection: Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures: Wash after use and before eating, smoking and using the toilet. Do not eat, drink, or smoke when using this product.

Respiratory protection: Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

Environmental exposure controls: Keep container tightly sealed when not in use.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance: Liquid.

Color: Purple or Blue.

Odor: Odorless.

Odor threshold: Not available.

pH: 8

Melting point: Not available.

Initial boiling point and range: Not available.

Flash point: No specific test data are available.

Evaporation rate: Not available.

Evaporation factor: Not available.

Flammability (solid, gas): Not available.

Upper/lower flammability or explosive limits: Not available.

Other flammability: Not available.

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Vapor pressure: Not available.

Vapor density: Not available.

Relative density: Not available.

Bulk density: Not available.

Solubility: Not available.

Partition coefficient: Not available.

Auto-ignition temperature: Not available.

Decomposition Temperature: Not available.

Viscosity: Not available.

Explosive properties: Not considered to be explosive. Explosive under the influence of a flame
Not available.

Oxidizing properties: Not available.

Other information: None.

Section 10: Stability and Reactivity

Reactivity: See the other subsections of this section for further details.

Stability: Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

Possibility of hazardous reactions: No potentially hazardous reactions known.

Conditions to avoid: There are no known conditions that are likely to result in a hazardous situation.

Materials to avoid: No specific material or group of materials is likely to react with the product to produce a hazardous situation.

Hazardous decomposition products: Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

Section 11: Toxicological Information

Information on toxicological effects

Acute toxicity - oral

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Notes (oral LD₅₀): Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀): Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀): Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data: Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation: Based on available data the classification criteria are not met.

Respiratory sensitization

Respiratory sensitization: Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization: Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity in vitro: Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity: Based on available data the classification criteria are not met.

IARC carcinogenicity: None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity: fertility Based on available data the classification criteria are not met.

Reproductive toxicity – development: Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure: Not classified as a specific target organ toxicant after a single exposure.

Target organs Respiratory system, lungs

Specific target organ toxicity - repeated exposure

STOT - repeated exposure: Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

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Aspiration hazard: Based on available data the classification criteria are not met.

General information: The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation: No specific symptoms known.

Ingestion: No specific symptoms known.

Skin Contact: No specific symptoms known.

Eye contact: No specific symptoms known.

Route of exposure: Ingestion Inhalation Skin and/or eye contact

Target Organs: No specific target organs known.

Section 12: Ecological Information (if applicable)

Ecotoxicity: Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Toxicity: Based on available data the classification criteria are not met.

Persistence and degradability

Persistence and degradability: The degradability of the product is not known.

Bio-accumulative potential

Bio-Accumulative Potential: No data available on bioaccumulation.

Partition coefficient: Not available.

Mobility in soil

Mobility: No data available.

Other adverse effects

Other adverse effects: None known.

Section 13: Disposal Considerations

Waste treatment methods

General information: The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly

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cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods: Do not empty into drains.

Section 14: Transport Information (if applicable)

General: The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN Number

UN No. (International): Not applicable.

UN No. (DOT): Not applicable.

UN No. (IATA): Not applicable.

UN proper shipping name

Proper shipping name (International): Not applicable.

Proper shipping name (DOT): Not applicable.

Proper Shipping Name (IATA): Not applicable.

Transport hazard class(es)

Transport Labels (International): No transport warning sign required.

IATA Hazard Class: Not applicable.

DOT transport labels: No transport warning sign required.

Packing group

Packing group (International): Not applicable.

DOT packing group: Not applicable.

IATA Packing Group: Not applicable.

Environmental hazards

Environmentally Hazardous Substance: No.

Special precautions for user: Not applicable.

DOT reportable quantity: Not applicable.

DOT TIH Zone: Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

Section 15: Regulatory Information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

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California Directors List of Hazardous Substances

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

None of the ingredients are listed or exempt.

Rhode Island "Right To Know" List

None of the ingredients are listed or exempt.

Minnesota "Right To Know" List

None of the ingredients are listed or exempt.

New Jersey "Right To Know" List

None of the ingredients are listed or exempt.

Pennsylvania "Right To Know" List

None of the ingredients are listed or exempt.

Inventories

US - TSCA

None of the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

Section 16: Other Information

Abbreviations and acronyms used in the safety data sheet

TDG: The transport of dangerous goods act

IATA: International air transport association.

ICAO: Technical instructions for the safe transport of dangerous goods by air.

IMDG: International maritime dangerous goods.

CAS: Chemical abstracts service.

ATE: Acute toxicity estimate.

LC₅₀: Lethal concentration to 50 % of a test population.

LD₅₀: Lethal dose to 50% of a test population (median lethal dose).

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EC₅₀: 50% of maximal effective concentration.

PBT: Persistent, bioaccumulative and toxic substance.

vPvB: Very persistent and very bioaccumulative.

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity

Eye Dam. = Serious eye damage

Skin Corr. = Skin corrosion

STOT SE = Specific target organ toxicity-single exposure

Training advice: Only trained personnel should use this material.

The information in this safety data sheet is, to the best of our knowledge, correct as of the date it was issued. We do not guarantee that this safety data sheet includes all the information necessary for your intended use. You (the user) are responsible for determining whether this material or product is suitable for your particular purpose.