

SAFETY DATA SHEET (SDS)

1. Identification

Product identifier

Product name: duet +modC, Room Temperature Box

Other mean of identification

Product number: 5205-1 and 5206-1

Recommended use of the chemical and restrictions on use

Laboratory chemicals, Synthesis of substances

Supplier address/information

biomodal
The Trinity Building
Chesterford Research Park
Cambridge, CB10 1XL, UK

Emergency telephone number

+44 01223 800700

This number is available only during business hours.

2. Hazards Identification

GHS Classification: Not a hazardous substance or mixture

GHS Label: Not a hazardous substance or mixture

Other hazards: None.

3. Composition / Information on Ingredients

Ingredient	CAS Number	EU EINECS/ ELINCS List	% by Weight
Water	7732-18-5	231-791-2	100
Dilution Buffer	Not applicable	Not applicable	100
Magnetic Beads	Not applicable	Not applicable	100

(See Section 8 for Exposure Limits)

Molecular Weight: No data available.

CAS Number: Not applicable.

4. First Aid Measures

4.1 Description of first aid measures

General: This kit is an aggregation of numerous products and therefore information regarding the potential toxic effects of this substance are limited or absent. Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Show this data sheet to the doctor in attendance.

Eye:	Water	Check for and remove contact lenses. Consult a physician; preferably an ophthalmologist if health issues persists. Provide symptomatic/supportive care as necessary. Ensure that medical personnel are aware of the materials and take precautions to protect themselves.
	Dilution Buffer / Magnetic Beads	Flush immediately with large amounts of water for at least 15 minutes. Check for and remove contact lenses. Eyelids should be held away from the eyeball to ensure thorough rinsing. Consult a physician; preferably an ophthalmologist. Provide symptomatic/supportive care as necessary. Ensure that medical personnel are aware of the materials and take precautions to protect themselves.
Skin:	Water	Treat symptomatically and supportively. Ensure that medical personnel are aware of the materials and take precautions to protect themselves.
	Dilution Buffer / Magnetic Beads	Remove contaminated clothing and wash skin with soap and water for at least 15 minutes. If irritation persists, contact a physician. Wash clothing and shoes before reuse. Treat symptomatically and supportively. Ensure that medical personnel are aware of the materials and take precautions to protect themselves.
Inhalation	Water / Dilution Buffer / Magnetic Beads	If overcome by mist or dust, move person to fresh air; if breathing difficulty or other effects occur, consult a physician. If not breathing, give cardiopulmonary resuscitation (CPR). Avoid mouth-to-mouth. Get immediate medical attention. Treat symptomatically and supportively. Ensure that medical personnel are aware of the materials and take precautions to protect themselves.

SAFETY DATA SHEET (SDS)

Ingestion:	Water	If a person vomits place them in a recovery position so that vomit will not reenter the mouth and throat. Rinse mouth with water. Do not attempt to induce vomiting unless directed otherwise by medical personnel. Never give anything by mouth to an unconscious person.
	Dilution Buffer / Magnetic Beads	If a person vomits place them in a recovery position so that vomit will not reenter the mouth and throat. Rinse mouth with water. If this material is swallowed, call a physician immediately and show the container or label. Do not attempt to induce vomiting unless directed otherwise by medical personnel. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

None reasonably foreseeable.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. No further relevant information available.

5. Fire Fighting Measures

Suitable Extinguishing Media:

Substances are nonflammable.

Fire Fighting Procedures:

Keep people away. Isolate fire and prevent unauthorized entry. Soak thoroughly with water to cool and prevent re-ignition. Use fine water spray or foam. Cool surroundings with water to localize fire zone. Handheld dry chemical or carbon dioxide extinguishers may be used for small fires.

Special Protective Equipment for Firefighters:

Exposed firefighters must wear NIOSH-approved positive pressure self-contained breathing apparatus with full-face mask and full firefighting clothing (firefighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fire fight from a protected location or a safe distance.

Unusual Fire and Explosion Hazards:

If water is used to fight fire, contain runoff using dikes to prevent contamination of water supplies. Do not allow water runoff to enter nearby streams, ponds, or lakes.

Combustion Products:

During a fire, smoke which may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating, may be present. Combustion products may include and are not limited to: carbon monoxide and carbon dioxide.

6: Accidental Release Measures

Steps to be Taken if Material is Released or Spilled:

Water	Keep unnecessary people away; isolate hazard area and deny entry. All recovered material should be packaged, labeled, transported and disposed of or reclaimed in accordance with applicable laws and regulations and in conformance with good engineering practices. (Also see Section 8). Refer to Section 7 for information on safe handling. Refer to Section 8 for information on personal protection equipment. Refer to Section 13 for disposal information. Refer to Section 15 for spill/release reporting information.
Dilution Buffer / Magnetic Beads	Wear a HEPA respirator, chemical safety goggles, rubber boots, protective clothes and gloves. Keep unnecessary people away; isolate hazard area and deny entry. All recovered material should be packaged, labeled, transported and disposed of or reclaimed in accordance with applicable laws and regulations and in conformance with good engineering practices. (Also see Section 8). Do not flush to sewer or waterways. Prevent release to the environment (soil, ditches, sewers, waterways, and/or groundwater) if possible. Wash all exposed skin areas with soap and water. Launder contaminated clothing before reuse. Refer to Section 7 for information on safe handling. Refer to Section 8 for information on personal protection equipment. Refer to Section 13 for disposal information. Refer to Section 15 for spill/release reporting information.

7. Handling and Storage

Handling

Water	Follow safe chemical handling procedures for handling and storage.
Dilution Buffer / Magnetic Beads	Avoid contact with material. Avoid prolonged or repeated exposure. Do not handle material near food, feed, or drinking water. Keep away from heat, sparks, open flame, or any other ignition source. Use adequate ventilation. Ensure that the proper protective gloves and eye protection are worn when handling the material. After handling, always wash hands thoroughly with soap and water. Replace contaminated clothing and wash thoroughly before reusing. Follow safe chemical handling procedures for handling and storage.

Storage

Water	Keep container tightly closed. Store in cool, dry conditions in well-sealed receptacles at room temperature.
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SAFETY DATA SHEET (SDS)

Dilution Buffer /
Magnetic Beads

Keep container dry. Store away from excessive heat, direct sunlight, and away from oxidizing agents. Keep container tightly closed. Store in a well-ventilated area. Store away from food, feed, and water. Store in cool, dry conditions in well-sealed receptacles at room temperature.

8. Exposure Controls / Personal Protection

Exposure Limits

Occupational exposure limit values have not been defined for this product.

Component	Cal/OSHA	OSHA	ACGIH	OEL
Water / Dilution Buffer / Magnetic Beads	N/A	N/A	N/A	N/A

Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, duration of use, and the hazards and/or potential hazards that may be encountered during use. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing/wash thoroughly before reuse.

Engineering Controls

Water

Use good laboratory practices

Dilution Buffer /
Magnetic Beads

If process generates dust, fumes, or mist, use local exhaust ventilation or other engineering control to maintain airborne levels below exposure limits and to prevent accumulation of dust.

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Personal Protective Equipment (PPE)

Eye Protection:

Based on an exposure risk assessment, appropriate eyewear should be worn to prevent mechanical injury or other irritation to eyes due to airborne particles or splashes which may result from handling this product. If there is a potential for exposure to particles/liquid which could cause eye discomfort, wear chemical goggles.

Skin Protection:

Wear clean body-covering clothing such as a lab coat when handling product.

Hand Protection:

Based on an exposure risk assessment, appropriate chemical (latex/nitrile) protective gloves should be worn when handling this material. Consistent with general hygienic practices for any material, skin contact should be minimized. Use gloves to protect from mechanical injury. Selection of gloves will depend on task.

SAFETY DATA SHEET (SDS)

Respiratory Protection:

Not required except in case of aerosol formation.

9. Physical and Chemical Properties

Physical state:	Water / Dilution Buffer / Magnetic Beads	Liquid
Odor:	Water / Dilution Buffer / Magnetic Beads	None
Odor Threshold:	Water / Dilution Buffer / Magnetic Beads	No data available
Appearance	Water / Dilution Buffer	Colorless liquid
	Magnetic Beads	Brown Liquid
Flashpoint	Water / Dilution Buffer / Magnetic Beads	No data available
Autoignition Temperature	Water /	No data available
Boiling Point:	Water	100°C
	Dilution Buffer / Magnetic Beads	No data available
Specific Gravity:	Water	0.99823 g/mL
	Dilution Buffer	No data available
	Magnetic Beads	1.127 g/mL
Melting Point:	Water	0°C
	Dilution Buffer / Magnetic Beads	No data available
Volatile:	Water / Dilution Buffer / Magnetic Beads	No data available
Vapor Pressure	Water	17.535 mm Hg
	Dilution Buffer / Magnetic Beads	No data available
Evaporation Rate (Water = 1)	Water	1
	Dilution Buffer / Magnetic Beads	No data available

SAFETY DATA SHEET (SDS)

Vapor Density (Air = 1)	Water / Dilution Buffer / Magnetic Beads	No data available
% Solubility in Water:	Water	100
	Dilution Buffer / Magnetic Beads	No data available
Octanol/Water Partition Coefficient:	Water	Log P _{ow} : -0.467
	Dilution Buffer / Magnetic Beads	No data available
Molecular Formula:	Water	H ₂ O
	Dilution Buffer / Magnetic Beads	No data available
Molecular Weight:	Water	18 g/mol
	Dilution Buffer / Magnetic Beads	No data available
pH:	Water	7
	Dilution Buffer	7.9 – 8.1
	Magnetic Beads	8.0 – 8.4
Flammability:	Water / Dilution Buffer / Magnetic Beads	Nonflammable
Explosion limits:	Water / Dilution Buffer / Magnetic Beads	No data available
Decomposition Temperature:	Water / Dilution Buffer / Magnetic Beads	No data available
Viscosity	Water / Dilution Buffer / Magnetic Beads	No data available

9.2 Other Safety Information

No further relevant information available.

10. Stability and Reactivity

This kit is an aggregation of numerous products in small quantities and are considered stable under normal conditions.

Stability:

Water	Under normal conditions of storage and use this product is stable.
Dilution Buffer / Magnetic Beads	Under normal conditions of storage and use this product is stable. Under fire conditions, may decompose and emit toxic vapors.

Reactivity:

Water / Dilution Buffer / Magnetic Beads	Under normal conditions of storage and use hazardous reactions of this product will not occur.
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Incompatible materials:

Water / Dilution Buffer	No further relevant information available.
Magnetic Beads	Metals and metallic compounds

Hazardous decomposition products:

Water / Dilution Buffer/ Magnetic Beads	None known
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Chemical Reactivity:

Water / Dilution Buffer/ Magnetic Beads	None known
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Hazardous Reactions:

Water / Dilution Buffer/ Magnetic Beads	None known
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Conditions to Avoid:

Water / Dilution Buffer	None known
Magnetic Beads	Avoid contact with incompatible materials. Avoid exposure to heat and direct sunlight

11. Toxicological Information

Acute Effects

Eye Contact:	Water / Dilution Buffer / Magnetic Beads	No data available
Skin Contact:	Water / Dilution Buffer / Magnetic Beads	No data available
Inhalation:	Water / Dilution Buffer / Magnetic Beads	No data available
Ingestion:	Water	LG50 Oral-Rat: >90,000 mg/kg
	Dilution Buffer / Magnetic Beads	No data available
Carcinogenicity:	Water / Dilution Buffer / Magnetic Beads	No data available

- **IARC (International Agency for Research on Cancer)** Substances are not listed.
- **NTP (National Toxicology Program)** Substances are not listed.

Target Organ Effects:	Water / Dilution Buffer / Magnetic Beads	No data available
Genetic Effects:	Water / Dilution Buffer / Magnetic Beads	No data available
Reproductive Effects:	Water / Dilution Buffer / Magnetic Beads	No data available
Sensitization Effects:	Water / Dilution Buffer / Magnetic Beads	No data available
Developmental Effects:	Water / Dilution Buffer / Magnetic Beads	No data available
Chronic Effects:	Water / Dilution Buffer / Magnetic Beads	No data available
Repeated Dose Toxicity:	Water / Dilution Buffer / Magnetic Beads	No data available

SAFETY DATA SHEET (SDS)

Acute Toxicity Values:	Water / Dilution Buffer / Magnetic Beads	No data available
NOAEL:	Water / Dilution Buffer / Magnetic Beads	No data available
HNSTD:	Water / Dilution Buffer / Magnetic Beads	No data available

Other Toxicology Information

Specific testing has not been performed on this product. Hazard evaluation is based on information from similar products, raw material data, and technical literature. Exposure may cause irritation to the eyes, mucous membranes, upper respiratory tract, and skin. As this kit is an aggregation of numerous products, the chemical, physical and toxicological properties have not been thoroughly investigated. May be harmful by inhalation, ingestion, or skin absorption.

12. Ecological Information

12.1 Toxicity

EcoToxicity Information:	Water / Dilution Buffer / Magnetic Beads	No data available
Biodegradability:	Water / Dilution Buffer / Magnetic Beads	No data available
Stability in Water:	Water / Dilution Buffer / Magnetic Beads	No data available
Bioaccumulation:	Water / Dilution Buffer / Magnetic Beads	No data available
Microorganisms:	Water / Dilution Buffer / Magnetic Beads	No data available
Algae:	Water / Dilution Buffer / Magnetic Beads	No data available
Daphnia:	Water / Dilution Buffer / Magnetic Beads	No data available
Fish:	Water / Dilution Buffer / Magnetic Beads	No data available

SAFETY DATA SHEET (SDS)

12.2 Toxicity

Water / Dilution Buffer/
Magnetic Beads

PBT/vPvB assessment unavailable as chemical safety assessment not required or not conducted.

13. Disposal Considerations

Must not be disposed of together with household garbage. Do not dump into any sewers, on the ground, or into any body of water. Sweep up spilled material and place in suitable container for disposal. Use only licensed transporters and permitted facilities for waste disposal. Comply with Federal, State, or local regulations for disposal. Do not reuse containers. For additional guidance, we recommend that you contact your local Department of Health Services for information on the disposal of this product or arrange for disposal by an EPA licensed & permitted disposal company.

14. Transport Information

U.S. Department of Transportation (DOT):

These materials are not classified as hazardous for transport.

International Maritime Organization (IMDG):

These materials are not classified as hazardous for transport.

International Air Transport Authority (IATA):

These materials are not classified as hazardous for transport.

International Civil Aviation Organization (ICAO):

These materials are not classified as hazardous for transport.

International Carriage of Dangerous Goods by Road (ADR):

These materials are not classified as hazardous for transport.

International Carriage of Dangerous Goods by Rail (RID):

These materials are not classified as hazardous for transport.

Maritime Pollutant: Not listed as a Marine Pollutant.

Hazardous Substances Reportable Quantity: Not applicable.

****Consult Appropriate ICAO/IATA/DOT/IMDG/ADR/RID regulations for specific requirements based on shipping quantities.***

15. Regulatory Information

U.S. Federal Regulations

Hazard Communication Classification: This product is not a “hazardous chemical” as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA):
No CERCLA listed chemicals.

Toxic Substances Control Act (TSCA): Not subject to TSCA reporting.

EPA Registry Number: N/A

Clean Water Act (CWA): This product does not contain components listed as Priority Pollutants under the Clean Water Act. (40 CFR 122.21 and 40 CFR 122.42)

Clean Air Act (CAA): This product does not contain components listed under the Clean Air Act.

Superfund Amendments and Reauthorization Act (SARA 302/304) Title III Information: This product does not contain components regulated under SARA section 302/304.

SARA Section 311/312 (40 CFR 370) Hazard Categories:

This product is not a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200, and as such does not require reporting under the requirements of 40CFR 370, Hazardous Chemical Reporting; Community Right to Know.

SARA Section 313 (40 CFR 372)

This product does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

State Regulations

California: This product does not contain chemicals(s) known to the State of California to cause cancer, birth defects or reproductive harm.

Massachusetts Right to Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components: No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right to Know Components: No components are subject to the New Jersey Right to Know Act.

SAFETY DATA SHEET (SDS)

International Inventories

Canadian Workplace Hazardous Materials Information System (WHMIS): Not controlled under WHMIS (Canada).

EU Classification: According to present data no classification and labeling is required according to Directives 67/548/EEC or 1999/45/EC.

16. Other Information

NOT FOR DRUG, HOUSEHOLD OR OTHER USES. This is a kit for use in research and development.

National Fire Protection Association (NFPA) Ratings: This information is intended solely for the use of individuals trained in the NFPA system.

Health: 1 Flammability: 0 Reactivity: 0

Disclaimer: No additional information available. While biomodal believes information contained herein is accurate, biomodal makes no warranty of any kind, express or implied, with respect to this information and expressly disclaims all liability for reliance thereon. This data is offered for your consideration, investigation, and verification. The above information, data, recommendations, and suggestions appearing in this safety data sheet (SDS) regarding our research compounds or products are based upon tests and data believed to be reliable as of the date of publication but does not purport to be all inclusive and shall be used only as a guide for experienced personnel. As this is a kit with an aggregation of numerous products with little safety information available, the products should be handled by qualified personnel wearing adequate protective equipment. biomodal shall not be held liable for any damage resulting from the handling or from contact with the above product. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, biomodal cannot guarantee that these are the only hazards that exist.

End of Safety Data Sheet