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SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

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

1.1 Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
222530	BD Difco™ Oxford Medium Base	No data available

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

Identified uses: Laboratory Chemicals

Uses advised against: None known.

1.3 Details of the supplier of the safety data sheet

Manufacturer

BD, Integrated Diagnostic Solutions
11, rue Aristide Bergès
Le Pont de Claix 38800
France

Telephone: 33 476 68 36 36

Contact Person: BD Diagnostic Systems Europe - Regulatory Compliance Department

E-mail: msds_europe@bd.com

1.4 Emergency telephone number: CHEMTREC 1 800 424 9300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Health Hazards

Skin irritation

Category 2 H315: Causes skin irritation.

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Serious eye irritation

Category 2

H319: Causes serious eye irritation.

2.2 Label Elements



Signal Word: Warning

Hazard Statement(s): H315: Causes skin irritation.
H319: Causes serious eye irritation.

Supplemental information

EUH208: Contains (Propanoic acid, 2-oxo-, sodium salt (1:1)). May produce an allergic reaction.

Precautionary Statements

Prevention: P264: Wash thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P332+P313: If skin irritation occurs: Get medical advice/attention.
P362: Take off contaminated clothing.
P337+P313: If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes

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Lithium chloride	25 - <50%	7447-41-8	231-212-3	No data available.	No data available.	
Sodium pyruvate	0.1 - <1%	113-24-6	204-024-4	01-212076704 7-50-0003 01-212076704 7-50-0004	No data available.	

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This substance has workplace exposure limit(s).

Classification

Chemical name	CLP Classification	Notes
Lithium chloride	Acute Tox.: 4: H302Skin Irrit.: 2: H315Eye Irrit.: 2: H319	
Sodium pyruvate	Eye Irrit.: 2: H319Skin Sens.: 1B: H317	

Regulation No. 1272/2008.

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General: Causes serious eye irritation. Causes skin irritation.

4.1 Description of first aid measures

Inhalation: Provide fresh air, warmth and rest, preferably in comfortable upright sitting position.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Skin Contact: Promptly flush contaminated skin with soap or mild detergent and water. Promptly remove clothing if penetrated and flush the skin with water.

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Ingestion: DO NOT induce vomiting. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed: No data available.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: Causes serious eye irritation. Causes skin irritation.

Treatment: Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

General Fire Hazards: Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Use water to keep fire exposed containers cool and disperse vapors.

5.1 Extinguishing media Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Avoid water in straight hose stream; will scatter and spread fire.

5.2 Special hazards arising from the substance or mixture: Fire or excessive heat may produce hazardous decomposition products.

5.3 Advice for firefighters Special fire fighting procedures: No unusual fire or explosion hazards noted.

Special protective equipment for firefighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

SECTION 6: Accidental release measures

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|---|---|
| 6.1 Personal precautions, protective equipment and emergency procedures: | Contact local authorities in case of spillage to drain/aquatic environment. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. |
| 6.2 Environmental Precautions: | Avoid release to the environment. |
| 6.3 Methods and material for containment and cleaning up: | Absorb spillage with suitable absorbent material. Prevent runoff from entering drains, sewers, or streams. See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS. |
| 6.4 Reference to other sections: | No data available. |

SECTION 7: Handling and storage:

- | | |
|--|---|
| 7.1 Precautions for safe handling: | When using do not eat, drink or smoke. Read and follow manufacturer's recommendations. Use personal protective equipment as required. |
| 7.2 Conditions for safe storage, including any incompatibilities: | Store in a cool, dry place. Keep container tightly closed. Keep from contact with oxidizing materials. |
| 7.3 Specific end use(s): | Reserved for industrial and professional use. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Biological Limit Values

None.

8.2 Exposure controls

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Appropriate Engineering Controls: No special requirements under ordinary conditions of use and with adequate ventilation.

Individual protection measures, such as personal protective equipment

General information: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin protection

Hand Protection: Chemical resistant gloves Suitable gloves can be recommended by the glove supplier. Wash hands after contact.

Other: Wear a lab coat or similar protective clothing.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Hygiene measures: Observe good industrial hygiene practices.

Environmental Controls: Do not release into the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: solid

Form: Solid

Color: According to product specification.

Odor: Characteristic

Odor Threshold: No data available.

pH: No data available.

Melting Point: No data available.

Boiling Point: No data available.

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Flash Point:	Not applicable
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Flammability Limit - Upper (%):	No data available.
Flammability Limit - Lower (%):	No data available.
Vapor pressure:	No data available.
Relative vapor density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in Water:	Completely Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	No data available.
Decomposition Temperature:	No data available.
SADT:	No data available.
Viscosity:	Not determined.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

9.2 Other information

Molecular weight:	No data available.
VOC Content:	No data available.
Bulk density:	No data available.
Dust Explosion Limit, Upper:	No data available.
Dust Explosion Limit, Lower:	No data available.
Dust Explosion Description Number Kst:	No data available.
Minimum ignition energy:	No data available.
Minimum ignition temperature:	No data available.
Metal Corrosion:	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:	No data available.
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- 10.2 Chemical Stability:** Material is stable under normal conditions.
- 10.3 Possibility of hazardous reactions:** Material is stable under normal conditions.
- 10.4 Conditions to avoid:** Avoid exposure to high temperatures or direct sunlight.
- 10.5 Incompatible Materials:** Water reactive material. Metals. Avoid contact with oxidizers or reducing agents. Avoid contact with acids.
- 10.6 Hazardous Decomposition Products:** Contact with acids liberates toxic gas. Stable; however, may decompose if heated.

SECTION 11: Toxicological information

Information on likely routes of exposure

- Inhalation:** No data available.
- Ingestion:** No data available.
- Skin Contact:** No data available.
- Eye contact:** No data available.

11.1 Information on toxicological effects

Acute toxicity

Oral

Product: ATEmix: 2,039.22 mg/kg

Specified substance(s)

Lithium chloride LD 50 (Rat): 526 mg/kg LD 50 (Rat): 526 mg/kg Experimental result, Key study
Sodium pyruvate LD 50 (Rat): 526 - 757 mg/kg
No data available.

Dermal

Product: Not classified for acute toxicity based on available data.

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Specified substance(s)

Lithium chloride LD 50 (Rat): > 2,000 mg/kg Experimental result, Key study
Sodium pyruvate No data available.

Inhalation

Product: Not classified for acute toxicity based on available data.

Specified substance(s)

Lithium chloride LC 50 (Rat, 4 h) > 5.57 mg/l Aerosol, Experimental result, Key study
LC 50 (Rat, 4 h) > 5.53 mg/l Aerosol, Experimental result, Supporting study
Sodium pyruvate No data available.

Repeated dose toxicity

Product: No data available.

Specified substance(s)

Lithium chloride NOAEL (Rat(Male), Oral): 13.9 mg/kg
NOAEL (Rat(Male), Oral): 84.8 mg/kg
Sodium pyruvate No data available.

Skin**Corrosion/Irritation:**

Product: No data available.

Specified substance(s)

Lithium chloride in vivo (Rabbit): Not irritant Experimental result, Key study
Sodium pyruvate No data available.

Serious Eye Damage/Eye Irritation:

Product: No data available.

Specified substance(s)

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Lithium chloride	in vivo (Rabbit, 24 - 72 hrs): Category 1 OECD GHS in vivo (Rabbit, 24 - 72 hrs): Category 1 OECD GHS in vivo (Rabbit, 24 - 72 hrs): Category 1 OECD GHS in vivo (Rabbit, 24 - 72 hrs): Category 1 OECD GHS in vivo (Rabbit, 24 - 72 hrs): Category 1 OECD GHS in vivo (Rabbit, 24 - 72 hrs): Category 1 OECD GHS in vivo (Rabbit, 24 - 72 hrs): Category 1 OECD GHS in vivo (Rabbit, 24 - 72 hrs): Category 1 OECD GHS
Sodium pyruvate	No data available.

Respiratory or Skin Sensitization:

Product: No data available.

Specified substance(s)

Lithium chloride	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Sodium pyruvate	No data available.

Germ Cell Mutagenicity

In vitro

Product: No data available.

Specified substance(s)

Lithium chloride	No data available.
Sodium pyruvate	No data available.

In vivo

Product: No data available.

Specified substance(s)

Lithium chloride	No data available.
Sodium pyruvate	No data available.

Carcinogenicity

Product: No data available.

Specified substance(s)

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Lithium chloride No data available.
Sodium pyruvate No data available.

Reproductive toxicity

Product: No data available.

Specified substance(s)

Lithium chloride No data available.
Sodium pyruvate No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s)

Lithium chloride No data available.
Sodium pyruvate No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Specified substance(s)

Lithium chloride No data available.
Sodium pyruvate No data available.

Aspiration Hazard

Product: No data available.

Specified substance(s)

Lithium chloride No data available.

Sodium pyruvate No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

Fish

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Product: No data available.

Specified substance(s)

Lithium chloride NOAEL (Oncorhynchus mykiss, 96 h): 59.4 mg/l (Static) Experimental result, Key study
LC 50 (Oncorhynchus mykiss, 96 h): 158 mg/l (Static) Experimental result, Key study

Sodium pyruvate No data available.

Aquatic Invertebrates

Product: No data available.

Specified substance(s)

Lithium chloride NOAEL (Daphnia magna, 48 h): 63.4 mg/l (Static) Experimental result, Key study
EC 50 (Daphnia magna, 48 h): 249 mg/l (Static) Experimental result, Key study

Sodium pyruvate No data available.

Chronic Toxicity

Fish

Product: No data available.

Specified substance(s)

Lithium chloride LOAEL (Pimephales promelas, 26 d): 1.9 mg/l (flow-through) Experimental result, Supporting study
LOAEL (Danio rerio, 34 d): 24.35 mg/l (semi-static) Read-across from supporting substance (structural analogue or surrogate), Key study
LOAEL (Danio rerio, 34 d): 25 mg/l (semi-static) Read-across from supporting substance (structural analogue or surrogate), Key study
NOAEL (Danio rerio, 34 d): 18 mg/l (semi-static) Read-across from supporting substance (structural analogue or surrogate), Key study
LC 50 (Pimephales promelas, 26 d): 8.7 mg/l (flow-through) Experimental result, Supporting study

Sodium pyruvate No data available.

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Aquatic Invertebrates

Product: No data available.

Specified substance(s)

Lithium chloride LOAEL (Daphnia magna, 21 d): 2.53 mg/l (semi-static) Read-across from supporting substance (structural analogue or surrogate), Key study
NOAEL (Daphnia magna, 21 d): 10.4 mg/l (semi-static) Read-across from supporting substance (structural analogue or surrogate), Key study
NOAEL (Daphnia magna, 21 d): 1.7 mg/l (semi-static) Read-across from supporting substance (structural analogue or surrogate), Key study
EC 50 (Daphnia magna, 21 d): > 10.4 mg/l (semi-static) Read-across from supporting substance (structural analogue or surrogate), Key study
EC 50 (Daphnia magna, 21 d): > 1.7 mg/l (semi-static) Read-across from supporting substance (structural analogue or surrogate), Key study

Sodium pyruvate No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s)

Lithium chloride No data available.
Sodium pyruvate No data available.

12.2 Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s)

Lithium chloride No data available.
Sodium pyruvate No data available.

BOD/COD Ratio

Product No data available.

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Specified substance(s)

Lithium chloride	No data available.
Sodium pyruvate	No data available.

12.3 Bioaccumulative potential

Product: No data available.

Specified substance(s)

Lithium chloride	No data available.
Sodium pyruvate	No data available.

12.4 Mobility in soil:

Product: No data available.

Specified substance(s)

Lithium chloride	No data available.
Sodium pyruvate	No data available.

12.5 Results of PBT and vPvB assessment:

Product: No data available.

Specified substance(s)

Lithium chloride	No data available.
Sodium pyruvate	No data available.

12.6 Other adverse effects:

None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information:

This material and its container must be disposed of as hazardous waste. Dispose of waste and residues in accordance with local authority requirements.

Disposal methods:

Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

SECTION 14: Transport information

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ADR

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	
Class:	Not regulated.
Label(s):	Not regulated.
Hazard No. (ADR):	Not regulated.
Tunnel restriction code:	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
Marine Pollutant:	Not regulated.
14.6 Special precautions for user:	Not regulated.

ADN

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	
Class:	Not regulated.
Label(s):	Not regulated.
Hazard No. (ADR):	Not regulated.
Tunnel restriction code:	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
Marine Pollutant:	Not regulated.
14.6 Special precautions for user:	Not regulated.

RID

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name	Not regulated.
14.3 Transport Hazard Class(es)	
Class:	Not regulated.
Label(s):	Not regulated.

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14.4 Packing Group: Not regulated.

14.5 Environmental Hazards: Not regulated.
Marine Pollutant: Not regulated.

14.6 Special precautions for user: Not regulated.

IMDG

14.1 UN Number: Not regulated.

14.2 UN Proper Shipping Name: Not regulated.

14.3 Transport Hazard Class(es)
Class: Not regulated.
Label(s): Not regulated.
EmS No.: Not regulated.

14.4 Packing Group: Not regulated.

14.5 Environmental Hazards: Not regulated.
Marine Pollutant: Not regulated.

14.6 Special precautions for user: Not regulated.

IATA

14.1 UN Number: Not regulated.

14.2 Proper Shipping Name: Not regulated.

14.3 Transport Hazard Class(es):
Class: Not regulated.
Label(s): Not regulated.

14.4 Packing Group: Not regulated.

14.5 Environmental Hazards: Not regulated.
Marine Pollutant: Not regulated.

14.6 Special precautions for user: Not regulated.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: Not

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applicable

SECTION 15: Regulatory information

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

EU Regulations

Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer: none

Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer: none

Regulation (EC) No. 850/2004 on persistent organic pollutants: none

Regulation (EC) No. 649/2012 Import and export of dangerous chemicals: none

EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC): none

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended: none

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:

Chemical name	CAS-No.	Concentration
Ammonium iron(III) citrate	1185-57-5	0.1 - 1.0%
Zinc chloride (ZnCl ₂)	7646-85-7	- <0.1%

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.: none

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.: none

Directive 96/82/EC (Seveso III): on the control of major accident hazards involving dangerous substances:

Chemical name	CAS-No.	Concentration
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zinc chloride	7646-85-7	0 - <0.1%
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EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants: none

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:

Chemical name	CAS-No.	Concentration
sodium carbonate	497-19-8	0.1 - 1.0%
calcium chloride	10043-52-4	0 - <0.1%
sodium hydrogensulphite ... %; sodium bisulphite . . . %	7631-90-5	0 - <0.1%
zinc chloride	7646-85-7	0 - <0.1%

15.2 Chemical safety assessment:

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Revision Information: Not relevant.

References

PBT PBT: persistent, bioaccumulative and toxic substance.
vPvB vPvB: very persistent and very bioaccumulative substance.

Key literature references and sources for data: European Chemicals Agency (ECHA): Information on Chemicals.

Wording of the H-statements in section 2 and 3

H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Training information: No data available.

Classification according to Regulation (EC) No 1272/2008 as amended.

Skin Irrit. 2, H315
Eye Irrit. 2, H319



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Issue Date:
SDS No.:
Disclaimer:

31.05.2021

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