1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifiers

Product Name: ARMT1 Overexpression Lysate

Catalog Number: NBL1-08526

Components:
- Overexpression Lysate
- Empty Vector Negative Control
- 2x SDS Sample Buffer (contains SDS)

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

Identified Uses: For research use only.

1.3 Details of the supplier of the safety data sheet

Company:	Novus Biologicals a Bio-Techne Brand	Telephone:	1-888-506-6887
	10771 E Easter Ave	Fax:	1-303-730-1966
	Centennial, CO 80112 USA	Internet:	www.novusbio.com
		Email address:	novus@novusbio.com
Canada:	461 North Service Rd West	Telephone:	1-855-668-8722
	Unit B37	Fax:	902-827-6402
	Oakville, ON L6M 2V5	Email address:	Canada.inquiries@bio-techne.com
United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449
	Abingdon Science Park	Fax:	44 (0)1235 533420
	Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com
China:	1193 Changning Road	Telephone:	86-400-821-3475
	Unit 1901, Raffles Changning Office	Fax:	76 (021)52371001
	Shanghai, China	Email address:	techsupport.cn@bio-techne.com

1.4 Emergency Telephone Number

Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night: Within U.S. 1-800-262-8200 Worldwide 1-703-741-5500

Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]

Skin Corrosion/Irritation – Category 2

Serious Eye Damage/Eye Irritation – Category 2

2.2 Label Elements

Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP]

Pictogram(s):

Signal Word: Warning Hazard

Statement(s):

H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary Statement(s):

P264	Wash hands thoroughly after handling
P280	Wear protective gloves, protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P332+P313	If skin irritation occurs, get medical advice/attention.
P337+P313	If eye irritation persists, get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

2.3 Other Hazards

Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Sodium Dodecyl Sulfate

3.2 Mixtures

Component	CAS No.	EC No.	Index No.	Classification	Conc.
Sodium Dodecyl Sulfate	151-21-3	205-788-1			< 10%

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Advice

Consult a doctor and show this safety data sheet.

If Inhaled

Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

In Case of Skin Contact

Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.

In Case of Eye Contact

Flush with copious amounts of water for at least 15 minutes. Remove contact lenses if easy to do so. Consult a doctor.

If Swallowed

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation

Material may be irritating to the mucous membranes and upper respiratory tract.

Skin

Causes skin irritation.

Eyes

Causes eye irritation.

Ingestion

May be harmful if ingested.

4.3 Indication of immediate medical attention and special treatment needed

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Combustible. In case of fire, irritating or toxic fumes or gases may be formed.

5.3 Precautions for fire-fighters

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

6. ACCIDENTIAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.

6.4 Reference to other sections

For required PPE see section 8. For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid inhalation, contact with eyes, skin and clothing. Use in a well-ventilated area. Do not eat, drink, or smoke in laboratory areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool, well-ventilated area. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully released and kept upright to prevent leakage. Do not store in incompatible containers.

7.3 Specific end uses

Not applicable.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate Engineering Controls

Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station. Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling product.

Personal Protective Equipment

Eye / Face Protection

Use appropriate safety glasses.

Skin Protection

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

Body Protection

Wear appropriate protective clothing.

Respiratory Protection

If risk assessment indicates necessary, use a suitable respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid	**Vapor Pressure**	No data available.
Odor	Little to none	**Vapor Density**	No data available.
Odor Threshold	No data available.	**Relative Density**	No data available.
pH	No data available.	**Solubility**	Soluble
Melting / Freezing Point	No data available.	**Partition Coefficient**	No data available.
Boiling Point / Range	No data available.	**Autoignition Temperature**	No data available.
Flash Point	No data available.	**Decomposition Temperature**	No data available.
Evaporation Rate	No data available.	**Viscosity**	No data available.
Flammability (Solid, Gas)	No data available.	**Explosive Properties**	No data available.
Upper / Lower Flammability or Explosive Limits	No data available.	**Oxidizing Properties**	No data available.

9.2 Other safety information

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Oxidizing agents.

10.6 Hazardous decomposition products

Carbon dioxide, Carbon monoxide, Sodium oxides, Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

LD50 Oral – rat – 1,288 mg/kg.

Skin Corrosion / Irritation

Causes redness.

Serious Eye Damage / Irritation

Redness and pain.

Respiratory or Skin Sensitization

Sore throat and cough.

Germ Cell Mutagenicity

Classified based on available data.

Carcinogenicity

Classified based on available data.

Reproductive Toxicity

Classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data.

Aspiration Hazard

Classified based on available data.

Symptoms / Routes of Exposure

Inhalation:	Causes cough and sore throat.
Ingestion:	Causes abdominal pain, diarrhea, nausea, and vomiting.
Skin:	Causes redness and irritation.
Eyes:	Causes redness and pain.

Delayed / Immediate Effects:

Additional Information

Classified based on available data.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

Contaminated Packaging

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

Special Precautions

Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains, and sewers.

14. TRANSPORT INFORMATION

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.

14.1 UN-Number

Does not meet the criteria for classification as hazardous for transport.

14.2 UN proper shipping name

Does not meet the criteria for classification as hazardous for transport.

14.3 Transport hazard class(es)

Does not meet the criteria for classification as hazardous for transport.

14.4 Packaging group

Does not meet the criteria for classification as hazardous for transport.

14.5 Environmental hazards

Does not meet the criteria for classification as hazardous for transport.

14.6 Special precautions for users

Does not meet the criteria for classification as hazardous for transport.

Additional Transport Information

Does not meet the criteria for classification as hazardous for transport.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

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

TSCA (Toxic Substances Control Act): Sodium Dodecyl Sulfate is listed.

SARA 313: Not applicable.

SARA 311/312: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been made for this product.

16. OTHER INFORMATION

Further Information

This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists.

End of safety data sheet.