

1. PRODUCT AND COMPANY IDENTIFICATION

A. PRODUCT IDENTIFIERS

PRODUCT NAME : **Alt-R CRISPR nucleases**
 SYNONYMS : **Alt-R S.p. Cas9 Nuclease, Alt-R S.p. Cas9 Nickase, Alt-R A.s. Cpf1 Nuclease**
 INDEX # :

1074181	1078727	1078732	1078898
1074182	1078728	1078733	1079172
1076155	1078729	1078734	1074123
1076158	1078730	1078735	1078738
1076159	1078731	1078737	

 CAS # : **N/A**

B. DETAILS OF SUPPLIER OF THE SAFETY DATA SHEET

COMPANY : **Integrated DNA Technologies**
 : **1710 Commercial Park**
 : **Coralville, IA 52241**
 TELEPHONE : **1-800-328-2661**
 EMERGENCY PHONE # : **24 Hour Emergency Telephone:**
CHEMTREC: 1-800-424-9300

Note: CHEMTREC's emergency number is to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

C. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE:

For research and development purposes only.

2. HAZARD IDENTIFICATION

A. GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

THIS PRODUCT IS CONSIDERED NON-HAZARDOUS. Per OSHA 29CFR1910.1200, Commonwealth of Australia [NOHSC: 1005, 1008(1999)], and the latest amendments to the European Union Directives 67/548/EC and 1999/45/EC, this product does not require a Material Safety Data Sheet (MSDS) or Safety Data Sheet (SDS). This product does not contain more than 1% of a component classified as hazardous and does not contain more than 0.1% of a component classified as carcinogenic. Despite the classification of certain products/components as non-hazardous, we strongly recommend using prudent laboratory practices: avoiding unnecessary contact and use of personal protective equipment, which may include gloves, eye protection, and lab coats, during the use of any laboratory reagent. IDT shall not be held liable for any damages resulting from handling or from contact with the above product.

I. PICTOGRAM: : **NOT APPLICABLE**
 II. SIGNAL WORD : **NOT APPLICABLE**
 III. HAZARD STATEMENTS : **NOT APPLICABLE**
 IV. PRECAUTIONARY STATEMENTS: : **NOT APPLICABLE**

3. COMPOSITION/INFORMATION ON INGREDIENTS

All ingredients are considered Non-Hazardous per OSHA 29CFR 1910.1200

4. FIRST AID MEASURES

SKIN CONTACT: **Remove contaminated clothing. Flush affected area with water and then wash with soap or mild detergent and water. Observe for signs of irritation. If irritation is present, get medical attention.**

EYE CONTACT: **Wash eyes with large amounts of water or normal saline for at least 15 minutes. Observe for signs of irritation. If irritation is present, get medical attention.**

INGESTION: **If swallowed, induce vomiting immediately after giving two glasses of Water. Never give anything by mouth to an unconscious person.**

INHALATION:	Remove from exposure area to fresh air immediately. Get medical attention immediately.
INJECTION:	If accidentally injected, get medical attention.
5. FIRE FIGHTING MEASURES	
Fire and Explosion Hazard:	Non-Flammable
Fire Extinguishing Media:	N/A
6. ACCIDENTAL RELEASE MEASURES	
OCCUPATIONAL SPILL:	Absorb spill with inert material, then place in a chemical waste Container. Dispose of in a manner consistent with federal, local law.
REPORTABLE QUANTITY (RQ):	Not Applicable
7. HANDLING AND STORAGE	
Observe all federal, state and local regulations. Do not breathe dust. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep tightly closed. Store in a cool dry place (prolonged storage at -20° C). Use prudent laboratory practices for handling and storage of chemical substances of unknown toxicity.	
8. EXPOSURE CONTROLS/PERSONAL PROTECTION	
EXPOSURE CONTROLS:	Use in a laboratory hood or other ventilated device. OSHA, ACGIH, or NIOSH has not established occupational exposure limits for this substance. Use prudent laboratory practices for handling chemical substances of unknown toxicity.
EYE PROTECTION:	Employees should wear splash proof or dust resistant safety goggles to prevent eye contact with this substance.
CLOTHING:	Employees should wear appropriate protective clothing (laboratory coat with long sleeves) and equipment to prevent skin contact with this material.
GLOVES:	Employee must wear appropriate protective gloves to prevent contact with this material.
9. PHYSICAL AND CHEMICAL PROPERTIES	
DESCRIPTION:	Colorless liquid.
PH:	7.4
10. STABILITY AND REACTIVITY	
REACTIVITY:	Stable under recommended storage conditions.
CONDITIONS TO AVOID	Direct sunlight, extremely high or low temperatures, and incompatible materials.
INCOMPATIBILITIES:	Strong acids, strong bases, strong oxidizers.
POLYMERIZATION:	Not Available
11. TOXICOLOGICAL INFORMATION	
TOXICITY:	The toxicological properties of this material have not been investigated. For research and development purposes only.
CARCINOGEN STATUS:	No information available.
LOCAL EFFECTS:	No information available.
TARGET EFFECTS:	No information available.
AT INCREASED RISK FROM EXPOSURE:	No information available.
CARCINOGEN/REPRODUCTIVE TOXIN STATUS:	
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH

NTP	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL IMPACT RATING (0-4):	No data available
ACUTE AQUATIC TOXICITY:	No data available
DEGRADABILITY:	No data available
LOG BIOCONCENTRATION FACTOR (BCF):	No data available

13. DISPOSAL CONSIDERATIONS

Observe all Federal, State and Local Regulations.

14. TRANSPORTATION INFORMATION

Ship as a non-regulated material. No transportation restrictions apply. The acute toxicity profile does not warrant shipment as a hazardous material (DOT) or a dangerous good (IATA).

15. REGULATORY INFORMATION

The toxicological properties of this material have not been investigated. For research and development purposes only.

16. OTHER INFORMATION

POTENTIAL HEALTH EFFECTS:

SKIN CONTACT:	Short Term Exposure:	Possible Irritant
	Long Term Exposure	No information available
EYE CONTACT:	Short Term Exposure:	Possible Irritant
	Long Term Exposure	No information available
INGESTION:	Short Term Exposure:	Possible Irritant
	Long Term Exposure	No information available
INHALATION:	Short Term Exposure:	Possible Irritant.
	Long Term Exposure	May cause long term health effects
INJECTION:	Short Term Exposure:	No information available
	Long Term Exposure	No information available

THE AFOREMENTIONED INFORMATION IS BELIEVED TO BE CORRECT, BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. INTEGRATED DNA TECHNOLOGIES SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.