ReverTra Ace™
First issue : Aug. 4, 2014

SDS No.900F

Safety Data Sheet

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identification of the product	**ReverTra Ace™**
Product Code	TRT-101
SUPPLIER	
Name	TOYOBO Co., Ltd.
Address	2-2-8 Dojima Hama Kita-ku Osaka, 530-8230 Japan
Department	Biotech support Department
Telephone No.	+81-6-6348-3786
Fax No.	+81-6-6348-3833
Recommended use and restrictions on use	cDNA Synthesis Kit (Reagent for research)

2 HAZARDS IDENTIFICATION

Most Important Hazards	Few adverse human health effects are anticipated.
Specific Hazards	Not available
GHS Classification	Classification not possible

3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Product (Substance/Mixture): Mixture

Chemical Nature

Parts Name	Main components	CAS No. (EC NO.)
ReverTra Ace	Reverse transcriptase	(EC 2.7.7.49)
	Poly(oxyethylene) Nonylphenylether	9016-45-9
	Glycerol	56-81-5
5× Buffer	Tris(Hydroxymethyl)aminomethane	77-86-1
	Magnesium sulfate	7487-88-9

Components Contributing to the Hazard

Common Chemical Name (or Generic Name)	Glycerol	Poly(oxyethylene) Nonylphenylether
Synonyms	Glycerin	Nonidet P-40
Contained	ReverTra Ace : 50%	ReverTra Ace : 0.01%
Chemical formula	$CH_2OHCHOHCH_2OH$	$HO(C_2H_4O)n\text{-}C_6H_4\text{-}C_9H_{19}$
CAS No.	56-81-5	9016-45-9
Concentration	50%	0.01%

4 FIRST-AID MEASURES

Inhalation	In case of irritation by inhaling this product, move affected person to fresh air and await recovery. If irritation persists, seek immediate medical attention.
Skin Contact	Wash with plenty of clean water, immediately.
Eye Contact	Rinse cautiously with water several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, seek medical attention.
Ingestion	Induce vomiting. If indisposition continues, seek medical attention.

5 FIRE-FIGHTING MEASURES

Extinguishing Media	Water, Carbon Dioxide, Foam, Dry Chemical Powder
Protection of fire-fighters	Fire-fighting should be done from the windward side of fire area. Fire-fighters should wear proper protective equipment in case of large scale fire.

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6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective gear to avoid eye/skin contact and inhalation.
Environmental Precautions	Avoid disposition to the environment.
Methods for Cleaning up	Use cloth, paper or anything similar to soak up the solution leaking out of the container. Take up under vacuum using dust collecting filter.

7 HANDLING AND STORAGE

HANDLING

Technical Measures	Wear protective equipments and avoid contact with eyes and skin. Handle with ventilation and local exhaust system.
Precautions	Avoid substance contact .After handling, wash with clean water.
Safe Handling Advice	Good laboratory technique should be used when handling this product.

STORAGE

Technical Measures	Store in the laboratory bottle
Storage Conditions	Store at about -20°C
Packaging Materials	Store in the original package

8 EXPOSURE CONTROLS/ PERSONAL PROTECTION

ENGINEERING MEASURES Set up good ventilation and exhaust system in the work area.

Control Parameter

Limit Values	Glycerol	Poly(oxyethylene) Nonylphenylether
JSOH OEL	Not established	Not established
ACGIH TLV	10mg/m^3	Not established
OSHA PEL	total dust:15mg/m^{3}TWA respirable fr.: 5mg/m^{3}TWA	Not established

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection	Wear a dust mask.
Hand Protection	Chemical safety gloves.
Eye Protection	Chemical safety goggles.
Skin and Body Protection	Long sleeves to prevent contact with skin.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid. 5× Buffer freezes at -20℃
Colour	None
Odour	None
pH	7.0-9.0
Flash Point	No flammability due to aqueous solution, but glycerol whose flash point 160℃ may stay behind after volatilization ReverTra Ace.
Boiling Point	Not available
Melting Point	Not available
Decomposition Temperature	Not available
Density	1.0-1.2(g/cm^3)
Solubility	Soluble in water

10 STABILITY AND REACTIVITY

Stability	Stable at less than -20℃
Possible Hazardous Reactions	None
Conditions to Avoid	Strong heat
Material to Avoid	Direct sunlight, strong oxidizers and strong reducers
Hazardous Decomposition Product	Not available

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11 TOXICOLOGICAL INFORMATION

Acute Toxicity	Not available
Local Effects	May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

12 ECOLOGICAL INFORMATION

Mobility	Soluble in water and diffusible into water environment.
Persistence/Degradability	Not available
Bioaccumulation	Not available

13 DISPOSAL CONSIDERATIONS

Waste from Residues	Dispose of in accordance with all applicable local and national laws and regulations.
Contaminated Packaging	Dispose of in accordance with all applicable local and national laws and regulations.

14 TRANSPORT INFORMATION

International Regulations

UN Classification Number	Not classified
	Follow all of the laws and regulations in your respective country.
Specific Precautions	To prevent packages from breaking, handle with care.

15 REGULATORY INFORMATION

Follow all of the laws and regulations in your country.

16 OTHER INFORMATION

Notice

This product is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. The information in this SDS, to the best of our knowledge, is accurate and correct. However, TOYOBO makes no warranty and assumes no liability whatsoever in connection with any use of this information. The information shall not be taken as being all inclusive and is to be used only a guide. All materials and mixtures may be present unknown hazards and should be used with caution. The SDS is subject to revision as new information becomes available.