



KOD -Plus- Neo
 First issue : Aug. 3, 2009
 Revised : Apr. 1, 2021
 MSDS No. 196F

Material Safety Data Sheet

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name **KOD -Plus- Neo**
 Product Code **KOD-401**
 SUPPLIER
 Name **Biotechnology Overseas Sales and Marketing Department TOYOBO**
 Address **Osaka Umeda Twin Towers South,
 1-13-1 Umeda, Kita-ku, Osaka 530-0001, Japan**
 Department **Biotechnology Overseas Sales and Marketing Department**
 Emergency Telephone No. **+81-6-6348-3846**
 Fax No. **+81-6-6348-3833**

2 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Product Preparation
 (Substance/Preparation)
 Chemical Nature
 Parts Name Main components CAS No. (EC NO.)
 KOD -Plus- Neo DNA polymerase (EC 2.7.7.7)
 monoclonal antibody -
 Glycerol 56-81-5
 10×PCR Buffer for KOD - Plus- Neo Tris(Hydroxymethyl)aminomethane 77-86-1
 25mM MgSO₄ Magnesium sulfate 7487-88-9
 2mM dNTPs Deoxyadenosine triphosphate 1927-31-7
 Deoxycytidine triphosphate 102783-51-7
 Deoxyguanosine triphosphate 93919-41-6
 Deoxythymidine triphosphate 18423-43-3

Components Contributing to the Hazard

Common Chemical Name (or Generic Name)	Glycerol	Poly(oxyethylene) Nonylphenylether
Synonyms	Glycerin	Nonidet P-40
Chemical formula	CH ₂ OHCHOHCH ₂ OH	Not available
CAS No.	56-81-5	9016-45-9
Concentration	50%	0.05%

3 HAZARDS IDENTIFICATION

Most Important Hazards Few adverse human health effects are anticipated.
 Specific Hazards Not available

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 clean water, immediately.
 Eye Contact Flush eyes with clean water for more than 15 minutes, and 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.

TOYOBO

KOD -Plus- Neo
 First issue : Aug. 3, 2009
 Revised : Apr. 1, 2021
 MSDS No. 196F

Material Safety Data Sheet

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
Incompatible Products	Oxidizers
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
Colour	None
Odour	None
pH	7.0-9.0
Flash Point	No flammability due to aqueous solution, but glycerol whose flash point 160°C may stay behind after volatilization KOD -Plus- Neo.
Boiling Point	Not available
Melting Point	Not available
Decomposition Temperature	Not available
Density	1.0-1.2
Solubility	Soluble in water

10 STABILITY AND REACTIVITY

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



KOD -Plus- Neo
 First issue : Aug. 3, 2009
 Revised : Apr. 1, 2021
 MSDS No. 196F

Material Safety Data Sheet

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 MSDS, 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 MSDS is subject to revision as new information becomes available.