

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	IntelliPlex KRAS G12/13 Mutation Kit
Manufacturer/Supplier:	PlexBio Co., Ltd. 6F-1, No. 351 Yangguang Street, Neihu District, Taipei 114 Taiwan, R.O.C. Tel: (02) 2627-5878 Fax: (02) 2627-5979

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

Kit Contents	Known Hazardous Components	CAS#	Concentration
KRAS Reaction Mix	Not Hazardous	-	-
KRAS Primer Mix	Not Hazardous	-	-
KRAS Hy Buffer	Not Hazardous	-	-
SA-PE Solution	Sodium azide	26628-22-8	0.05%
KRAS POS Control	Not Hazardous	-	-
KRAS NEG Control	Not Hazardous	-	-
KRAS π Code MicroDisc	Sodium azide	26628-22-8	0.05%
KRAS 10X Wash Buffer	Sodium azide	26628-22-8	<0.1%

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview:

OSHA Hazards:	Target Organ Effect, Highly toxic by ingestion, Highly toxic by skin absorption
Target Organs:	Heart, Central nervous system, Brain.
GHS Classification:	Acute toxicity, Dermal (Category 1) Acute toxicity, Oral (Category 2) Acute aquatic toxicity (Category 1)

GHS Label elements, including precautionary statements:

Pictogram:



Signal word: Danger

Hazard statement(s):

H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P262	Do not get in eyes, on skin, or on clothing.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing.
P302+P350	IF ON SKIN: Gently wash with plenty of soap and water.
P310	Immediately call a POISON CENTER or doctor/ physician.

Potential Acute Health Effects:



Eye Contact:	May cause eye irritation.
Skin Contact:	May be fatal if absorbed through skin. May cause skin irritation.
Inhalation:	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion:	May be harmful if swallowed.
Potential Chronic Health Effects:	
Carcinogenic Effects:	Not available.
Mutagenic Effects:	Not available.
Reproduction Toxicity:	Not available.
Sensitization:	Not available.
HMIS Code:	(Health: 4) (Flammability: 0) (Reactivity: 0)
NFPA Code:	(Health: 4) (Flammability: 0) (Reactivity: 0)

SECTION 4: FIRST AID MEASURES

General information:	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Eye Contact:	Flush eyes with water as a precaution.
Skin Contact:	Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
Inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: FIRE AND EXPLOSION DATA

Conditions of flammability:	Not flammable or combustible.
Suitable extinguishing media:	Dry powder.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus for firefighting if necessary.
Hazardous combustion products:	Hazardous decomposition products formed under fire conditions. - Sodium oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods for Cleaning Up:	Take up mechanically and collect in suitable container for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage:	Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Do not store near acids. Heat sensitive.



SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls:	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection:	Follow usual standard laboratory practices. Use appropriate chemical resistant gloves, appropriate safety glasses and wear protective work clothing.
Exposure Limits:	Not available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State and Appearance:	Liquid.	Vapor Pressure:	Not available.
Odor:	Not available.	Vapor Density:	Not available.
Taste:	Not available.	Volatility:	Not available.
pH (1% soln/water):	Not available.	Odor Threshold:	Not available.
Boiling Point:	Not available.	Water/Oil Dist. Coeff.:	Not available.
Melting Point:	Not available.	Ionicity (in Water):	Not available.
Critical Temperature:	Not available.	Dispersion Properties:	Not available.
Specific Gravity:	Not available.	Solubility:	Not available.

SECTION 10: STABILITY AND REACTIVITY DATA

Stability:	The product is stable under recommended shipping and storage conditions.
Reactivity:	The product is stable under recommended shipping and storage conditions.
Conditions to Avoid:	Excess heat and moisture.
Materials to Avoid:	Strong acids/alkalis, strong oxidizing/reducing agents.
Hazardous Decomposition Products:	Not available.
Polymerization:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity:	Oral LD50	LD50 Oral - rat - 27 mg/kg
	Inhalation C50	LC50 Inhalation - rat - 37 mg/m3
	Remarks	Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye: Other. Behavioral: Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration: Structural or functional change in trachea or bronchi.
	Dermal LD50	LD50 Dermal - rabbit - 20 mg/kg
Other information on acute toxicity		Not available.
Potential Acute Health Effects:		
	Eye Contact:	May cause eye irritation.
	Skin Contact:	May cause skin irritation.
	Inhalation:	May cause irritation of respiratory tract.
	Ingestion:	May be harmful if swallowed.
Potential Chronic Health Effects:		
	Carcinogenic Effects:	Not available.
	Mutagenic Effects:	Not available.
	Reproduction Toxicity:	Not available.
	Sensitization:	Not available.
Additional Information:		RTECS: VY8050000



SECTION 12: ECOLOGICAL INFORMATION

Toxicity:	Toxicity to fish	LC50 - Lepomis macrochirus - 0.68 mg/l - 96.0 h
	Toxicity to daphnia and other aquatic invertebrates.	EC50 - Daphnia pulex (Water flea) - 4.2 mg/l - 48 h
Persistence and degradability:		Not available.
Bioaccumulative potential:		Not available.
Mobility in soil:		Not available.
PBT and vPvB assessment:		Not available.
Other adverse effects:		An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

Product:	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging:	Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

DOT (US):			
UN number: 1687	Class: 6.1	Packing group: II	
Proper shipping name: Sodium azide			
Reportable Quantity (RQ): 1000 lbs			
Marine pollutant: No Poison Inhalation			
Hazard: No			
IMDG:			
UN number: 1687	Class: 6.1	Packing group: II	EMS-No: F-A, S-A
Proper shipping name: SODIUM AZIDE			
Marine pollutant: No			
IATA:			
UN number: 1687	Class: 6.1	Packing group: II	
Proper shipping name: Sodium azide			

SECTION 15: OTHER REGULATORY INFORMATION

OSHA Hazards	Target Organ Effect, Highly toxic by ingestion, Highly toxic by skin absorption
SARA 302 Components	
Sodium azide	CAS-No. 26628-22-8
SARA 313 Components	
Sodium azide	CAS-No. 26628-22-8
SARA 311/312 Hazards	Acute Health Hazard, Chronic Health Hazard



Massachusetts Right To Know Components

Sodium azide CAS-No. 26628-22-8

Pennsylvania Right To Know Components

Sodium azide CAS-No. 26628-22-8

New Jersey Right To Know Components

Sodium azide CAS-No. 26628-22-8

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION

To the best of our knowledge, the information contained herein is accurate and complete. However, we can neither guarantee nor assume any liability whatsoever for the accuracy or completeness of the information contained in this MSDS. Final determination of suitability of any material is the sole responsibility of the user, as health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. All materials and mixtures may present unknown hazards and should be used with caution. No warranty is made, either express or implied.