

MATERIAL SAFETY DATA SHEET MSDS No. 2007074

IDENTITY : KR074 Anti Keratin 12 Polyclonal Antibody

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER'S NAME : TRANS GENIC INC.
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TELEPHONE NUMBER FOR INFORMATION : +81-78-306-0295
EMERGENCY TELEPHONE NUMBER : +81-78-306-0295
DATA PREPARED : May 7, 2007

2. COMPOSITION / INFORMATION ON INGREDIENTS

| CHEMICAL NAME | CAS NUMBER | CONTENT |
|-------------------------------------|------------|---------|
| Anti Keratin 12 Polyclonal Antibody | - | - |
| Phosphate buffer solution | - | - |
| Block Ace | - | 2% |
| PROCLIN | - | 0.1% |

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW : White frozen mass Irritation of eyes and skin. May be harmful if inhaled and ingested.

POTENTIAL HEALTH EFFECTS:

ROUTE OF ENTRY : Inhalation; Yes, Skin; Yes, Ingestion; Yes.
EYE CONTACT : May irritate and cause pain, tearing, redness swelling and itching of the eyes.
SKIN CONTACT : Hypersensitive individuals may experience allergic reactions and dermatologic reactions such as rash and hives.
SKIN ABSORPTION : Prolonged exposure may result in the material being absorbed through skin in harmful amounts.
INHALATION : Irritate to the eyes, nose, throat and lungs. It may also cause headaches and dizziness.
INGESTION : May cause anorexia, headaches, bellyache, diarrhea, nausea, vomiting and fever.
CARCINOGENICITY : NTP; Not listed, IARC; Not listed, OSHA; Not listed.

4. FIRST AID

EYE CONTACT : Remove any contact lenses at once. Flush eyes well with flooding amounts of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.
SKIN CONTACT : Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.
INHALATION : Move victim to fresh air. If breathing is difficult, give oxygen. If irritation persists, consult a physician.
INDIGESTION : Rinse mouth, give plenty of water or milk to dilute the substance and induce vomiting. Consult a physician.

5. FIRE FIGHTING MEASURES

FLASH POINT : Not available.
FLAMMABLE LIMITS : Not available.
EXTINGUISHING MEDIA : Carbon dioxide, dry chemical powder, foam, water.
FIRE & EXPLOSION HAZARDS: Toxic, irritating fumes or smoke may be emitted.
FIRE FIGHTING INSTRUCTIONS: Firemen should wear normal protective equipments and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Do not touch spilled material without suitable protection. Take up spilled material with ashes or other absorbents. After material is completely picked up, wash the spill site with soap and water and ventilate the area. During the cleanup, wear protective clothes, gloves and goggles. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean or dispose of contaminated clothing.

7. HANDLING AND STORAGE

Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection.
Store away from sunlight in a cold (-20°C = -4°F) well-ventilated dry place. Keep container tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS : Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.
VENTILATION : Local Exhaust: Necessary, Mechanical (General): Necessary.
PERSONAL PROTECTION : Safety glasses, Chemical resistant gloves, Protective clothing, NIOSH / MSHA approved respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR : White frozen mass, MELTING POINT: Not Available, BOILING POINT: Not available,
SPECIFIC GRAVITY : Not available, SOLUBILITY IN WATER: Miscible

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY : This material is stable under normal and anticipated ambient storage and handling conditions.
CONDITION TO AVOID : Sunlight, heat.
INCOMPATIBILITY (MATERIAL TO AVOID): Strong oxidizers, metals, acids, acid chlorides
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, Sulfur oxides, phosphor oxides and sodium compounds may be formed.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS : May be harmful by inhalation, indigestion or skin absorption. The toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with existing disposal practices employed for infectious waste at your institution. Observe all federal, state and local environmental regulation.

14. TRANSPORT INFORMATION

Not available.

15. REGULATORY INFORMATION

Caution: Substance not yet fully tested.

16. OTHER INFORMATION

This product is a chemical substance and is intended to be used by persons having chemical knowledge and skill, as their own discretion and risk.
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.
** shall not be held liable for any damage resulting from handling or from contact with the above material.