

<b>Material Safety Data Sheet</b>
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**1. Name of substance/preparation and company****1.1. Commercial products: ExpressArt FFPE RNaready and FFPE Quick RNaready kits**

Cat.-nos.: 9000-A100, 9010-A96

**1.2. Company: AmpTec GmbH**  
**Koenigstr. 4a**  
**D-22767 Hamburg**  
**Germany**  
**Phone: ++49 (0) 40 – 636 747 22****1.3. Emergency contact:** AmpTec GmbH ++49 (0) 40 – 636 747 22  
or ++49 (0) 40 – 636 747 21  
Centre for Detoxification Berlin ++49 (0) 30 1 92 40  
Centre for Detoxification Munich ++49 (0) 89 1 92 40**2. Composition/Information on constituents****2.1. constituents:****Box I Bottle Lysis Buffer (1x)**

Classification: Xn; R: 20/21/22-32; S: 7-13-16.

Contains: 30 % Guanidinium thiocyanate (CAS-Nr.: 0000059-38-4; Xn; R:20/21/22-32;S: 13)

**Bottle Wash Buffer 1 (1x) I**

Classification: not necessary. No hazardous substances in reportable quantities.

**Bottle Wash Buffer 2 (1x) I**

Classification: not necessary. No hazardous substances in reportable quantities.

**Bottle Demodification Solution (1x) I**

Classification: not necessary. No hazardous substances in reportable quantities.

**Bottle RNase-free water (1x) I**

Classification: not necessary. No hazardous substances in reportable quantities.

**Box II Vial NucleoGuard**

Classification: not necessary. No hazardous substances in reportable quantities.

**Vial RNase-free DNase**

Classification: not necessary. No hazardous substances in reportable quantities.

**Vial Dilution buffer for DNase**

Classification: not necessary. No hazardous substances in reportable quantities.

**Vial Proteinase K**

Classification: Xn-Harmful (CAS-Nr.: 39450-01-6; Xn; R:36/37/38/42; S: 22/24/25).

Notes: Is to be classified according to EEC directive 254-457-8, Annex I, Index Nr. 647-014-00-9 as harmful.

**3. Hazards identification**

Warnings: 20/21/22 Harmful by inhalation, in contact with skin and if swallowed  
32 Contact with acids liberates very toxic gas  
36/37/38 Irritating to eyes, respiratory system and skin  
42 May cause sensitisation by inhalation  
S22 Do not breathe dust  
S 24/25 Avoid contact with skin and eyes

Notes: Substance hazardous to water and ground water

#### **4. First aid measures**

First aid:                   Inhalation: Remove to fresh air. If irritation persists consult a doctor immediately. Seek medical advice if sensitised.  
Skin contact: Immediately wash with soap and copious amounts of water. Get medical advice if irritation occurs  
Eye contact: flush eyes with water for at least 15 minutes.  
                                  Consult a doctor immediately.  
Ingestion: Wash mouth out with water provided the person is conscious. Consult a doctor immediately.

Instructions for physician: No known symptoms to date. Treat symptomatically.

#### **5. Fire-fighting measures**

Extinguishing media:    Use dry chemical, CO<sub>2</sub>, water spray or "alcohol" foam.  
Unusual hazards:        Combustible material.  
Protective measures:    In the event of fire, wear self-contained breathing apparatus.

#### **6. Accidental release measures**

6.1 Personal Precautions: Ensure ventilation is adequate. Wear heavy rubber gloves and rubber boots. Wear also suitable eye protection and a dust mask.  
6.2 Environmental Precautions: Do not allow to enter the surface or ground water. Do not allow to enter sewers.  
6.3 Clean-up Measures: Cover with dry lime or soda ash, pick up, keep in a closed container and hold for waste disposal. Ventilate area and wash spill site after material pick up is complete.

#### **7. Handling and storage**

7.1 Handling: Avoid contact with eyes and skin. Avoid inhalation of dust. Wear suitable protective clothing.  
7.2 Storage: The product should be stored in tightly closed containers, which should be kept in a cool, dry place. The product may deteriorate if exposed to light and/or humidity for prolonged periods.

#### **8. Exposure controls/personal**

8.1 Engineering Measures: Use in a fume cupboard or under Local Exhaust Ventilation.  
8.2 Personal Protection: Respiratory Protection: Wear a suitable dust-mask.  
Hand Protection: Gloves should be worn, chemical resistant.  
Eye Protection: Wearing safety goggles is advised, also availability of eye-wash stations.  
Skin Protection: Lab coats should be worn during handling.  
Safety deluge showers should be available.  
Hygiene Practices: Avoid contact with skin or eyes. Do not place in mouth.  
Do not eat, drink or smoke when handling this product.  
Upon completion of the use of this product, dispose of protective gloves safely and wash hands thoroughly with soap and water.

**9. Physical and chemical properties****Bottle Lysis Buffer**

Physical state	liquid
Miscible with water	yes
Colour	colourless
Odor	odorless
pH	5.0 – 7.0
density	not determined

**Vial Proteinase K**

Physical state	Powder
Miscible with water	yes
Colour	Off white
Odor	odorless
pH	n/a
density	not determined

**10. Stability and reactivity**

Hazardous reactions:	None known when used appropriately.
Hazardous decomposition products:	Only small concentrations.

**11. Toxicology****Bottle Lysis Buffer**

Guanidinium thiocyanate	
LD50 oral	not known
LD50 intraperitoneal	300 mg/kg (mouse)
LD50 skin	not known
LD50 inhal	not known

**Vial Proteinase K****11.1 Primary Irritant Effect:**

R36/37/38: Irritating to eyes, respiratory system and skin.

Adverse health effects may occur from vapours in poorly ventilated areas, including irritation of the mucous membranes of the nose, throat, respiratory tract and symptoms of headache and vomiting. If inhaled as dust may cause severe irritation and burns to nasal passages and throat. If ingested may cause severe irritation and burns to the gastro-intestinal tract.

**11.2 Sensitisation Effects:**

Via prolonged exposure, a sensitising effect through inhalation is possible.

Via prolonged exposure, a sensitising effect on the skin is possible.

**11.3 Further Toxicological Information**

It is not yet known whether this product has any carcinogenic properties.

Full toxicity data is not yet available, and all due care should be exercised.

This product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations, as issued in the latest version.

**12. Ecological information**

Hazards: Substance hazardous to water and ground water.

### **13. Disposal information**

Waste should be burnt in a chemical incinerator. Observe all local regulations.

### **14. Transport information**

Notes: This product is not subject to current regulations for transportation of hazardous goods (GGVS/ADR, GGVE/RID, IMDG, IATA/ICAO).

### **15. Regulatory**

#### **Vial Proteinase K**

##### 15.1 Labelling According to EU Guidelines

ANNEX I INDEX NUMBER: 647-014-00-9

INDICATION OF DANGER: Xn - Harmful.

R-Phrases:

R 36/37/38: Irritating to eyes, respiratory system and skin.

R 42: May cause sensitisation by inhalation

S-Phrases:

S 22: Do not breathe dust

S 24/25: Avoid contact with skin and eyes

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 1 Self-Classification

General safety regulations should always be observed when handling chemicals.

### **16. Other information**

This information is based on our present knowledge and shall be used only as a guide. However, this shall not constitute a guarantee for any specific product features. AmpTec is not held liable for any damage resulting from handling or from contact with the above products. MSDS has been prepared in accordance with EU Directive 67/548/EEC, 88/379/EEC, 91/155/EEC, 2001/58/EG and other EU Community legislations in force.