

Page: 1

Revision: 02/28/2014 Supersedes Revision: 03/09/2009

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

**1.1 Product Code:** 600024

**Product Name:** Transcription Factor p53 Competitor dsDNA

1.2 Relevant identified uses of the substance or mixture and uses advised against:

**Relevant identified uses:** For research use only, not for human or veterinary use.

1.3 Details of the Supplier of the Safety Data Sheet:

Company Name: Cayman Chemical Company

1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Web site address: www.caymanchem.com

Information: Cayman Chemical Company +1 (734)971-3335

1.4 Emergency telephone number:

Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300

CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

2.1 Classification of the Substance or Mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:

Serious Eye Damage/Eye Irritation, Category 2A

2.1.2 Classification according to Directive 1999/45/EC:

Xi: Irritant

Risk Phrases: R36

For full text of R-phrases: see SECTION 15.

2.2 Label Elements:

2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]:



GHS Signal Word: Warning

**GHS Hazard Phrases:** 

H319: Causes serious eye irritation.

**GHS Precaution Phrases:** 

P264: Wash {hands} thoroughly after handling.

P280: Wear {protective gloves/protective clothing/eye protection/face protection}.

**GHS Response Phrases:** 

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+313: If eye irritation persists, get medical advice/attention.

**GHS Storage and Disposal Phrases:** 

Please refer to Section 7 for Storage and Section 13 for Disposal information.



Page: 2

Revision: 02/28/2014 Supersedes Revision: 03/09/2009

#### 2.2.2 Labeling according to Directive 1999/45/EC:



X

**2.3** Adverse Human Health Causes serious eye irritation.

**Effects and Symptoms:** Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation, ingestion, or skin absorption.

May cause skin or respiratory system irritation.

To the best of our knowledge, the toxicological properties have not been thoroughly

investigated.

## Section 3. Composition/Information on Ingredients

CAS#/ RTECS#	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	Risk Phrases/ GHS Classification
NA NA	p53 Forward Complement	0.0 -1.0 %	NA NA	No phrases apply. No data available.
NA NA	p53 Reverse Complement	0.0 -1.0 %	NA NA	No phrases apply. No data available.
7647-14-5 VZ4725000	Sodium chloride	0.0 -5.0 %	231-598-3 NA	Xi; R36 Eye Damage 2A: H319
6132-04-3 TZ8595800	Sodium citrate	0.0 -5.0 %	NA NA	No phrases apply. No data available.
7732-18-5 ZC0110000	Water	88.0 -100.0 %	231-791-2 NA	No phrases apply. No data available.

## Section 4. First Aid Measures

**4.1 Description of First Aid**No data available.

Measures:

In Case of Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained

personnel. Get immediate medical attention.

In Case of Skin

Contact:

Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove

contaminated clothing. Get medical attention if symptoms occur. Wash clothing before

reuse.

In Case of Eye

Contact:

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes

examined and tested by medical personnel.

In Case of Ingestion: Wash out mouth with water provided person is conscious. Never give anything by mouth

to an unconscious person. Get medical attention. Do NOT induce vomiting unless

directed to do so by medical personnel.



Page: 3

Revision: 02/28/2014 Supersedes Revision: 03/09/2009

## Section 5. Fire Fighting Measures

**5.1 Suitable Extinguishing** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

**Unsuitable** A solid water stream may be inefficient.

**Extinguishing Media:** 

**5.2** Flammable Properties No data available.

and Hazards:

Flash Pt: No data.

**Explosive Limits:** LEL: No data. UEL: No data.

Autoignition Pt: No data.

**5.3** Fire Fighting As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH

**Instructions:** approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

**6.1** Protective Precautions, Avoid breathing vapors and provide adequate ventilation.

**Protective Equipment** As conditions warrant,

and Emergency

As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy

rubber gloves).

6.2 Environmental

Take steps to avoid release into the environment, if safe to do so.

**Precautions:** 

**Procedures:** 

**6.3 Methods and Material** Contain spill and collect, as appropriate.

For Containment and

Transfer to a chemical waste container for disposal in accordance with local regulations.

Cleaning Up:

# Section 7. Handling and Storage

**7.1 Precautions To Be** Avoid breathing dust/fume/gas/mist/vapours/spray.

**Taken in Handling:** Avoid prolonged or repeated exposure.

**7.2** Precautions To Be Keep container tightly closed.

**Taken in Storing:** Store in accordance with information listed on the product insert.

# Section 8. Exposure Controls/Personal Protection

#### 8.1 Exposure Parameters:

CAS#	Partial Chemical Name	Britain EH40	France VL	Europe
NA	p53 Forward Complement	No data.	No data.	No data.
NA	p53 Reverse Complement	No data.	No data.	No data.
7647-14-5	Sodium chloride	No data.	No data.	No data.
6132-04-3	Sodium citrate	No data.	No data.	No data.
7732-18-5	Water	No data.	No data.	No data.
CAS#	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
CAS#	Partial Chemical Name p53 Forward Complement	OSHA TWA  No data.	ACGIH TWA  No data.	Other Limits  No data.
NA	p53 Forward Complement	No data.	No data.	No data.
NA NA	p53 Forward Complement p53 Reverse Complement	No data.	No data.	No data.

Page: 4

Revision: 02/28/2014 Supersedes Revision: 03/09/2009

8	.2	Exposure Controls:	

**8.2.1 Engineering Controls** Use process enclosures, local exhaust ventilation, or other engineering controls to

(Ventilation etc.): control airborne levels below recommended exposure limits.

8.2.2 Personal protection equipment:

**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

**Other Protective** 

Lab coat

Clothing:

Respiratory Equipment NIOSH approved respirator, as conditions warrant.

(Specify Type):

Work/Hygienic/Mainten Do not take internally.

ance Practices: Facilities storing or utilizing this material should be equipped with an eyewash and a

safety shower.

Wash thoroughly after handling.

### Section 9. Physical and Chemical Properties

9.1 Information on Basic Phy	sical and Chemical Properties
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Physical States: [ ] Gas [ X ] Liquid [ ] Solid

Appearance and Odor:

pH:

~7.2

Melting Point:

No data.

Boiling Point:

No data.

Flash Pt:

No data.

Evaporation Rate:

No data.

**Explosive Limits:** LEL: No data. UEL: No data.

No data.

Vapor Pressure (vs. Air or

rapoi i lessule (vs. Al

mm Hg):

Vapor Density (vs. Air = 1): No data.

Specific Gravity (Water = 1): No data.

Solubility in Water: No data.

Autoignition Pt: No data.

9.2 Other Information

Percent Volatile: No data.

# Section 10. Stability and Reactivity

**10.1 Reactivity:** No data available.

**10.2 Stability:** Unstable [ ] Stable [ X ]

**10.3 Stability Note(s):** Stable if stored in accordance with information listed on the product insert.

Polymerization: Will occur [ ] Will not occur [ X ]

10.4 Conditions To Avoid: No data available.10.5 Incompatibility - No data available.

Materials To Avoid:

**10.6 Hazardous** No data available.

**Decomposition Or** 

**Byproducts:** 



Page: 5

Revision: 02/28/2014 Supersedes Revision: 03/09/2009

Section 11. Toxicological Information

11.1 Information on

**Toxicological Effects:** 

The toxicological effects of this product have not been thoroughly studied.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

Section 12. Ecological Information

Avoid release into the environment. 12.1 Toxicity:

Runoff from fire control or dilution water may cause pollution.

Section 13. Disposal Considerations

Dispose in accordance with local, state, and federal regulations. 13.1 **Waste Disposal** 

Method:

Section 14. Transport Information

LAND TRANSPORT (US DOT): 14.1

**DOT Proper Shipping Name:** Not dangerous goods.

**DOT Hazard Class: UN/NA Number:** 

LAND TRANSPORT (European ADR/RID): 14.1

Not dangerous goods. ADR/RID Shipping Name:

**UN Number: Hazard Class:** 

**AIR TRANSPORT (ICAO/IATA):** 14.3

ICAO/IATA Shipping Name: Not dangerous goods.

**Additional Transport** Transport in accordance with local, state, and federal regulations.

Information:

## Section 15. Regulatory Information

#### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS#	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
NA	p53 Forward Complement	No	No	No
NA	p53 Reverse Complement	No	No	No
7647-14-5	Sodium chloride	No	No	No
6132-04-3	Sodium citrate	No	No	No
7732-18-5	Water	No	No	No

CAS#	Hazardous Components (Chemical Name)	Other US EPA or State Lists
NA	p53 Forward Complement	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No
NA	p53 Reverse Complement	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No
7647-14-5	Sodium chloride	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No
6132-04-3	Sodium citrate	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No
7732-18-5	Water	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No



Page: 6

Revision: 02/28/2014 Supersedes Revision: 03/09/2009

#### **European Community Hazard Symbol codes:**



Xi

#### **European Community Risk and Safety Phrases:**

R36 Irritating to eyes.

S24/25 Avoid contact with skin and eyes.

S37/39 Wear suitable gloves and eye/face protection.

Regulatory Information This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and

**Statement:** European Directive 67/548/EEC as amended.

### Section 16. Other Information

**Revision Date:** 02/28/2014

Additional Information About No data available.

This Product:

**Company Policy or** 

Disclaimer:

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.