SAFETY DATA SHEET

DAB Substrate Buffer

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : DAB Substrate Buffer

Part no. : GE001, GV800, GV823, GV825, GV900, GV925, K3467, K3468, K5007, K8000, K8002, K8023, SK001, SK005, SK006, SK032

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

Identified uses : Laboratory use
Container type: vials
GE001 // EnVision FLEX Substrate Buffer (Dako Omnis) // HercepTest mAb pharmDx //2 x 26 mL
GV800 // EnVision FLEX Substrate Buffer (Dako Omnis) // EnVision FLEX, High pH (Dako Omnis) // 16 x 26 mL
GV823 // EnVision FLEX Substrate Buffer (Dako Omnis) // EnVision FLEX Mini Kit, High pH (Dako Omnis) // 4 x 26 mL
GV825 // EnVision FLEX Substrate Buffer (Dako Omnis) // EnVision FLEX DAB+ Substrate Chromogen System // 4 x 26 mL
GV900 // EnVision FLEX Substrate Buffer (Dako Omnis) // EnVision FLEX HRP Magenta, High pH (Dako Omnis) // 3 x 26 mL
GV925 // EnVision FLEX Substrate Buffer (Dako Omnis) // EnVision FLEX HRP Magenta Substrate Chromogen System (Dako Omnis) // 1 x 26 mL
K3467 // DAB+ Substrate Buffer // Dako Liquid DAB+ Substrate Chromogen System // 1 x 15 mL
K3468 // DAB+ Substrate Buffer // Dako Liquid DAB+ Substrate Chromogen System // 1 x 110 mL
K5007 // Dako REAL Substrate Buffer // Dako REAL EnVision Detection System, Peroxidase/DAB+, Rabbit/Mouse // 1 x 250 mL
K8000 // EnVision FLEX Substrate Buffer // EnVision FLEX, High pH, (Link) // 12 x 20 mL
K8002 // EnVision FLEX Substrate Buffer // EnVision FLEX+, Mouse, High pH, (Link) // 12 x 20 mL
K8023 // EnVision FLEX Substrate Buffer // EnVision FLEX Mini Kit, High pH, (Link) // 5 x 20 mL
SK001 // HercepTest DAB Substrate Buffer // HercepTest for Automated Link Platforms // 2 x 22 mL
SK005 // DAB+ Substrate Buffer // PD-L1 IHC 28-8 pharmDx // 15 x 7.2 mL
SK006 // DAB+ Substrate Buffer // PD-L1 IHC 22C3 pharmDx // 15 x 7.2 mL
SK032 // DAB+ Substrate Buffer //MAGE-A4 IHC 1F9 pharmDx// 15 x 7.2 mL
Reference number: SDS342

Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
Tel: +1 800 227 9770

Agilent Technologies Singapore (International) Pte Ltd.
No. 1 Yishun Avenue 7
Singapore, 768923
Tel. (65) 6276 2622

Agilent Technologies Denmark ApS
Produktionsvej 42
2600 Glostrup,
Denmark
Tel. +45 44 85 95 00

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

www.Agilent.com

e-mail address of person responsible for this SDS : sds@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +353 1 901 4670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

H412	LONG-TERM (CHRONIC) AQUATIC HAZARD	Category 3
EUH430	ENDOCRINE DISRUPTOR FOR THE ENVIRONMENT	Category 1

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : Danger

Hazard statements : H412 - Harmful to aquatic life with long lasting effects.
EUH430 - May cause endocrine disruption in the environment.

Precautionary statements

Prevention : P201 - Obtain special instructions before use.
P273 - Avoid release to the environment.

Response : P391 - Collect spillage.

Storage : P405 - Store locked up.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 2: Hazards identification

Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006. : Contains nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol). May cause endocrine disruption.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
imidazole	EC: 206-019-2 CAS: 288-32-4 Index: 613-319-00-0	<0.3	Acute Tox. 4, H302 Skin Corr. 1C, H314 Repr. 1B, H360D	ATE [Oral] = 500 mg/kg	[1]
nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	EC: 500-024-6 CAS: 9016-45-9 Index: 604-100-00-0	<0.25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 ED ENV 1, EUH430	M [Acute] = 1 M [Chronic] = 10	[1] [2] [3]
quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides	EC: 264-151-6 CAS: 63449-41-2 Index: 612-140-00-5	≤0.1	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Aquatic Acute 1, H400 **See Section 16 for the full text of the H statements declared above.**	ATE [Oral] = 500 mg/kg ATE [Dermal] = 1420 mg/kg M [Acute] = 10	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance of equivalent concern
[3] Substance of equivalent concern - Endocrine disrupting properties

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

SECTION 4: First aid measures

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. This material may cause endocrine disruption in the environment. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : No specific data.

5.3 Advice for firefighters

Special precautions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

SECTION 6: Accidental release measures

Methods for cleaning up : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. May be harmful to the environment if released. Dispose of spillages under controlled conditions.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid breathing vapour or mist. Avoid release to the environment. Avoid contact with eyes, skin and clothing. Do not ingest. Empty containers retain product residue and can be hazardous. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage : Specific storage conditions: Please consult the label.
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : Industrial applications, Professional applications.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Result	
imidazole	DNEL - Workers - Long term - Dermal	1.5 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	10.6 mg/m³

SECTION 8: Exposure controls/personal protection

PNECs

Not available.

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Not available.

Odour : Not available.

Odour threshold : Not available.

Melting point/freezing point : 0°C

Boiling point or initial boiling point and boiling range : 100°C

SECTION 9: Physical and chemical properties

Flammability : Not applicable.

Lower and upper explosion limit/ flammability limit : Not available.

Flash point : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

pH : 7.5

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C): Not available.

Solubility :

Media	Result
water	Soluble

Partition coefficient: n-octanol/water : Not applicable.

Vapour pressure :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
water	17.5	2.3	-	92.258	12.3	-

Relative density : Not available.

Relative vapour density : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties : Not available.

Oxidising properties : Not available.

9.2.2 Other safety characteristics

Miscible with water : Yes.

Evaporation rate : Not available.

Physical/chemical properties comments : Not available.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : May react or be incompatible with oxidising materials.

SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	
imidazole	Rat - Oral - LD50	220 mg/kg
quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides	Rat - Dermal - LD50	1420 mg/kg

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
imidazole	500	N/A	N/A	N/A	N/A
nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	4000	5010	N/A	N/A	N/A
quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides	500	1420	N/A	N/A	N/A

Skin corrosion/irritation

Product/ingredient name	Result	
nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	Rabbit - Skin - Mild irritant	Amount/concentration applied: 500 mg
	Rabbit - Skin - Mild irritant	Amount/concentration applied: 500 mg
	Rabbit - Skin - Mild irritant	Amount/concentration applied: 500 mg
	Rabbit - Skin - Mild irritant	Amount/concentration applied: 500 mg
	Rabbit - Skin - Mild irritant	Amount/concentration applied: 500 mg
	Rabbit - Skin - Mild irritant	Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result	
imidazole	Rabbit - Eyes - Moderate irritant	Duration of treatment/exposure: 168 hours Amount/concentration applied: 105 mg
nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	Rabbit - Eyes - Severe irritant	Amount/concentration applied: 20 mg
	Rabbit - Eyes - Severe irritant	Amount/concentration applied: 5 mg
	Rabbit - Eyes - Severe irritant	Amount/concentration applied: 5 mg

SECTION 11: Toxicological information

	Rabbit - Eyes - Severe irritant	Amount/concentration applied: 100 mg
	Rabbit - Eyes - Severe irritant	Amount/concentration applied: 5 mg
	Rabbit - Eyes - Severe irritant	Amount/concentration applied: 15 mg
	Guinea pig - Eyes - Severe irritant	Amount/concentration applied: 20 mg
	Mouse - Eyes - Severe irritant	Amount/concentration applied: 20 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

SECTION 11: Toxicological information

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	
nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	Acute - LC50 - Fresh water	1300 µg/l [96 hours]
	Chronic - NOEC - Fresh water	35 µg/l [100 days]
	Acute - LC50 - Fresh water	0.148 mg/l [48 hours]
	Acute - EC50 - Fresh water	12 mg/l [96 hours]
	Chronic - NOEC - Fresh water	8 mg/l [96 hours]
quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides	Acute - EC50	41.1 µg/l [48 hours]
	Chronic - NOEC	10.8 µg/l [21 days]
	Acute - LC50 - Fresh water	246 µg/l [96 hours]
	Chronic - NOEC - Fresh water	113.4 µg/l [38 days]
	Acute - EC50	0.255 mg/l [72 hours]
	Chronic - NOEC	0.023 mg/l [72 hours]

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Product/ingredient name	Result

SECTION 12: Ecological information

imidazole	Aerobic	90 to 100% [18 days] - Readily	Aerobic

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
imidazole	-	-	Readily
nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	-	-	Readily
quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
imidazole	-0.02	-	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logKoc	Koc
imidazole	0.81	6.39785

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
imidazole	No	No	No	No	No	No	No
nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	N/A	N/A	N/A	Yes	N/A	N/A	N/A
quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides	No	No	No	No	No	No	No

Mobility : Not available.

Conclusion/Summary : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
imidazole	N/A	N/A	N/A	Yes	N/A	N/A	N/A
nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	No	N/A	N/A	No	N/A	N/A	N/A
quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides	No	N/A	N/A	No	N/A	N/A	N/A

Regulation (EC) No. 1272/2008 [CLP]

SECTION 12: Ecological information

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
imidazole	No	No	No	No	No	No	No
nonylphenol, branched and linear, ethoxylated (with average molecular weight ≤ 1 540 g/mol)	N/A	N/A	N/A	Yes	N/A	N/A	N/A
quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides	No	No	No	No	No	No	No

Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP] : The product does not meet the criteria to be considered as a PBT or vPvB.

12.6 Endocrine disrupting properties

Conclusion/Summary [Product] : May cause endocrine disruption. May cause endocrine disruption in the environment.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. The generation of waste should be avoided or minimised wherever possible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : Dispose of material(s) and residues under controlled conditions. Disposal of Dako branded material(s) processed by Dako instruments is considered to be under controlled conditions. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-

SECTION 14: Transport information

14.5 Environmental hazards	No.	No.	No.

Additional information

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
Nonylphenol, ethoxylated	Endocrine disrupting properties for environment	Listed	43	7/3/2017

Substances of very high concern

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
Nonylphenol, ethoxylated	Substance of equivalent concern for environment	Candidate	ED/169/2012	12/19/2012
Nonylphenol, ethoxylated	Endocrine disrupting properties for environment	Recommended	6th recommendation	7/1/2015

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

None of the components are listed / The components are not impacted by a restriction

Labelling : Not applicable.

Other EU regulations

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

SECTION 15: Regulatory information

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	:	Not determined.
Canada	:	At least one component is not listed in DSL but all such components are listed in NDSL.
China	:	Not determined.
Eurasian Economic Union	:	**Russian Federation inventory**: All components are listed or exempted.
Japan	:	**Japan inventory (CSCL)**: Not determined. **Japan inventory (ISHL)**: Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	All components are listed or exempted.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	Not determined.
Viet Nam	:	All components are listed or exempted.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
B = Bioaccumulative
BCF = Bioconcentration Factor
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
IMO = International Maritime Organization
M = Mobile
N/A = Not available
P = Persistent
PBT = Persistent, Bioaccumulative and Toxic
PMT = Persistent, Mobile and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number

SECTION 16: Other information

SGG = Segregation Group
T = Toxic
vB = Very Bioaccumulative
vM = Very Mobile
vP = Very Persistent
vPvB = Very Persistent and Very Bioaccumulative
vPvM = Very Persistent and Very Mobile

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aquatic Chronic 3, H412	Calculation method
ED ENV 1, EUH430	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H360D	May damage the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH430	May cause endocrine disruption in the environment.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
ED ENV 1	ENDOCRINE DISRUPTOR FOR THE ENVIRONMENT - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2

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