According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 cyan version 1 - 12.12.2018



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

- 1.1. Product identifier
 - Mixture identification:Trade name:HP344 cyanTrade code:K20120W4
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
- 1.3. Details of the supplier of the safety data sheet Supplier:

Armor S.A.S CS 90508, 44105 Nantes Cedex 4, France Tel.: +33 (0) 240384000 Fax: +33 (0) 240384001 sds.de@armor-group.com http://www.armor-group.com

1.4. Emergency telephone number +33 (0)240384000

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture EC regulation criteria 1272/2008 (CLP) The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). Adverse physicochemical, human health and environmental effects: No other hazards 2.2. Label elements The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). Hazard pictograms: None Hazard statements: None Precautionary statements: None Special Provisions: None Special provisions according to Annex XVII of REACH and subsequent amendments: None 2.3. Other hazards vPvB Substances: None - PBT Substances: None Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty Name Ident. Number Classification	Qty	Name	Ident. Number	Classification
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According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 cyan version 1 - 12 12 2018

510	11 1 - 12.12				
	>= 7% - < 10%	2,2' -oxybisethanol; diethylene glycol	Index number:	603-140-00-6	3.1/4/Oral Acute Tox. 4 H302
			CAS:	111-46-6	
			EC:	203-872-2	
	>= 5% - < 7%	2-[2-(2-butoxyethoxy)et hoxy]ethanol; TEGBE;	Index number:	603-183-00-0	🍄 3.3/1 Eye Dam. 1 H318
		triethylene glycol	CAS:	143-22-6	
		monobutyl ether; butoxytriethylene glycol	EC:	205-592-6	
	>= 1% -	propan-2-ol; isopropyl	Index	603-117-00-0	🤨 2.6/2 Flam. Liq. 2 H225
	< 3%	alcohol; isopropanol	number:		
	0,0		CAS:	67-63-0	3.3/2 Eye Irrit. 2 H319
			EC:	200-661-7	💔 3.8/3 STOT SE 3 H336

SECTION 4: First aid measures

- 4.1. Description of first aid measures
- In case of skin contact:
 - Wash with plenty of water and soap.
- In case of eyes contact:
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of Ingestion:
 - Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
- In case of Inhalation:
- Remove casualty to fresh air and keep warm and at rest.
- 4.2. Most important symptoms and effects, both acute and delayed
 - None
- 4.3. Indication of any immediate medical attention and special treatment needed Treatment:
 - None

SECTION 5: Firefighting measures

- 5.1. Extinguishing media
 - Suitable extinguishing media:
 - Water.
 - Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:

- None in particular.
- 5.2. Special hazards arising from the substance or mixture Do not inhale explosion and combustion gases. Burning produces heavy smoke.
- 5.3. Advice for firefighters
 - Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures Wear personal protection equipment. Remove persons to safety.
 - See protective measures under point 7 and 8.
- 6.2. Environmental precautions
 - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.



According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 cyan

- version 1 12.12.2018
 - Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

- Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
- Wash with plenty of water. 6.4. Reference to other sections
 - See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
 - Avoid contact with skin and eyes, inhaltion of vapours and mists. Don't use empty container before they have been cleaned.
 - Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
 - Contamined clothing should be changed before entering eating areas.
 - Do not eat or drink while working.
 - See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
 - Keep away from food, drink and feed. Incompatible materials: None in particular. Instructions as regards storage premises: Adequately ventilated premises.
- 7.3. Specific end use(s) None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

- OEL Type: ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Notes: A4, BEI - Eye and URT irr, CNS impair

DNEL Exposure Limit Values

N.Å.

PNEC Exposure Limit Values

- N.A.
- 8.2. Exposure controls
- Eye protection:
 - Not needed for normal use. Anyway, operate according good working practices.
- Protection for skin:
- No special precaution must be adopted for normal use.
- Protection for hands:
 - Not needed for normal use.
- Respiratory protection:
- Not needed for normal use.
- Thermal Hazards:
 - None
- Environmental exposure controls:
 - None
- Appropriate engineering controls:
 - None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

	Properties	Value	Method:	Notes
--	------------	-------	---------	-------

According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 cyan

versio<u>n 1 - 12.12.2018</u>

Appearance:	cyan		
Colour:	cian.jpg		
Odour:	N.A.		
Odour threshold:	N.A.		
pH:	8,9	DIN 19268	
Melting point / freezing	N.A.		
point:			
Initial boiling point and	N.A.		
boiling range:			
Flash point:	97 ° C		
Evaporation rate:	N.A.		
Solid/gas flammability:	N.A.		
Upper/lower flammability	N.A.		
or explosive limits:			
Vapour pressure:	N.A.		
Vapour density:	N.A.		
Relative density:	1.05	ISO 1183	
Solubility in water:	soluble		
Solubility in oil:	N.A.		
Partition coefficient	N.A.		
(n-octanol/water):			
Auto-ignition temperature:	N.A.		
Decomposition	N.A.		
temperature:			
Viscosity:	2 -6 cps		
Explosive properties:	N.A.		
Oxidizing properties:	N.A.		

9.2. Other information

Properties	Value	Method:	Notes	
Miscibility:	N.A.			
Fat Solubility:	N.A.			
Conductivity:	N.A.			
Substance Groups relevant properties	N.A.			

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - Stable under normal conditions
- 10.2. Chemical stability
 - Stable under normal conditions
- 10.3. Possibility of hazardous reactions None
- 10.4. Conditions to avoid
 - Stable under normal conditions.
- 10.5. Incompatible materials None in particular.
- 10.6. Hazardous decomposition products None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects Toxicological information of the product: N.A.

Page n. 4 of 7





According to Regulation (EG) 1907/2006 (REACH)

Trade name: HP344 cyan

version 1 - 12.12.2018

Toxicological information of the main substances found in the product:

N.Ă.

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

a) acute toxicity;

b) skin corrosion/irritation;

c) serious eye damage/irritation;

d) respiratory or skin sensitisation;

e) germ cell mutagenicity;

- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

N.A.

- 12.2. Persistence and degradability
 - N.A.
- 12.3. Bioaccumulative potential N.A.
- 12.4. Mobility in soil
 - N.A.
- 12.5. Results of PBT and vPvB assessment vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

- 14.2. UN proper shipping name
 - N.A.
- 14.3. Transport hazard class(es) N.A.
- 14.4. Packing group

N.A.

- 14.5. Environmental hazards ADR-Enviromental Pollutant: No IMDG-Marine pollutant: No
- 14.6. Special precautions for user N.A.
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code N.A.



According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 cyan

version 1 - 12.12.2018

- **SECTION 15: Regulatory information** 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture Dir. 98/24/EC (Risks related to chemical agents at work) Dir. 2000/39/EC (Occupational exposure limit values) Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013 Regulation (EG) 1907/2006 (REACH) Regulation (EU) n. 286/2011 (ATP 2 CLP) Regulation (EU) n. 618/2012 (ATP 3 CLP) Regulation (EU) n. 487/2013 (ATP 4 CLP) Regulation (EU) n. 944/2013 (ATP 5 CLP) Regulation (EU) n. 605/2014 (ATP 6 CLP) Regulation (EU) n. 2015/1221 (ATP 7 CLP) Regulation (EU) n. 2016/918 (ATP 8 CLP) Regulation (EU) n. 2016/1179 (ATP 9 CLP) Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications: Restrictions related to the product: **Restriction 40** Restrictions related to the substances contained: No restriction. Where applicable, refer to the following regulatory provisions : Directive 2012/18/EU (Seveso III) Regulation (EC) nr 648/2004 (detergents). Dir. 2004/42/EC (VOC directive)
 - Dir. 2004/42/EC (VOC directive)

WGK Classification (Water hazard class - Verwaltungsvorschrift wassergefĤhrdende Stoffe)

Provisions related to directive EU 2012/18 (Seveso III): Seveso III category according to Annex 1, part 1

.	Upper-tier threshold (tonnes)
None	

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

- Full text of phrases referred to in Section 3:
 - H302 Harmful if swallowed.
 - H318 Causes serious eye damage.
 - H225 Highly flammable liquid and vapour.
 - H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Hazard class and	Code	Description	
hazard category			

Wecare by Armor

Safety Data Sheet

According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 cyan

version 1 - 12.12.2018

12.12.2010		
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure,
		Category 3

This safety data sheet has been completely updated in compliance to Regulation 2015/830.

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This Safety Data Sheet is only for the Armor product mentioned after "Product name : " in SECTION 1 - All use for other products is strictly forbidden.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.



According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 magenta version 1 - 12.12.2018

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

1.1. Product identifier Mixture identification: Trade name:

Trade code:

HP344 magenta K20120W4

- 1.2. Relevant identified uses of the substance or mixture and uses advised against
- 1.3. Details of the supplier of the safety data sheet Supplier:

Armor S.A.S CS 90508, 44105 Nantes Cedex 4, France Tel.: +33 (0) 240384000 Fax: +33 (0) 240384001 sds.de@armor-group.com http://www.armor-group.com

1.4. Emergency telephone number +33 (0)240384000

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture EC regulation criteria 1272/2008 (CLP) The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). Adverse physicochemical, human health and environmental effects: No other hazards 2.2. Label elements The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). Hazard pictograms: None Hazard statements: None Precautionary statements: None Special Provisions: None Special provisions according to Annex XVII of REACH and subsequent amendments: None 2.3. Other hazards vPvB Substances: None - PBT Substances: None Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty Name Ident. Number Classification



According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 magenta version 1 - 12 12 2018

 11 1 - 12.12				
>= 7% - < 10%	2,2' -oxybisethanol; diethylene glycol	Index number:	603-140-00-6	3.1/4/Oral Acute Tox. 4 H302
		CAS:	111-46-6	
		EC:	203-872-2	
>= 5% - < 7%	2-[2-(2-butoxyethoxy)et hoxy]ethanol; TEGBE;	Index number:	603-183-00-0	🍄 3.3/1 Eye Dam. 1 H318
	triethylene glycol	CAS:	143-22-6	
	monobutyl ether;	EC:	205-592-6	
	butoxytriethylene glycol			
>= 1% - < 3%	propan-2-ol; isopropyl alcohol; isopropanol	Index number:	603-117-00-0	2.6/2 Flam. Liq. 2 H225
- 070		CAS:	67-63-0	3.3/2 Eye Irrit. 2 H319
		EC:	200-661-7	😍 3.8/3 STOT SE 3 H336

SECTION 4: First aid measures

- 4.1. Description of first aid measures
- In case of skin contact:
 - Wash with plenty of water and soap.
- In case of eyes contact:
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of Ingestion:
 - Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
- In case of Inhalation:
 - Remove casualty to fresh air and keep warm and at rest.
- 4.2. Most important symptoms and effects, both acute and delayed
 - None
- 4.3. Indication of any immediate medical attention and special treatment needed Treatment:
 - None

SECTION 5: Firefighting measures

- 5.1. Extinguishing media
 - Suitable extinguishing media:
 - Water.
 - Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:

- None in particular.
- 5.2. Special hazards arising from the substance or mixture Do not inhale explosion and combustion gases. Burning produces heavy smoke.
- 5.3. Advice for firefighters
 - Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures Wear personal protection equipment. Remove persons to safety.
 - See protective measures under point 7 and 8.
- 6.2. Environmental precautions
 - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.



According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 magenta

- version 1 12.12.2018
 - Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

- Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
- Wash with plenty of water. 6.4. Reference to other sections
 - See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
 - Avoid contact with skin and eyes, inhaltion of vapours and mists. Don't use empty container before they have been cleaned.
 - Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
 - Contamined clothing should be changed before entering eating areas.
 - Do not eat or drink while working.
 - See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
 - Keep away from food, drink and feed. Incompatible materials: None in particular. Instructions as regards storage premises: Adequately ventilated premises.
- 7.3. Specific end use(s) None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

- OEL Type: ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Notes: A4, BEI - Eye and URT irr, CNS impair

- **DNEL Exposure Limit Values**
 - N.Á.

PNEC Exposure Limit Values

- N.A.
- 8.2. Exposure controls
- Eye protection:
 - Not needed for normal use. Anyway, operate according good working practices.
- Protection for skin:
- No special precaution must be adopted for normal use.
- Protection for hands:
 - Not needed for normal use.
- Respiratory protection:
- Not needed for normal use.
- Thermal Hazards:
 - None
- Environmental exposure controls:
 - None
- Appropriate engineering controls:
 - None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties V	/alue M	Method:	Notes
--------------	---------	---------	-------

According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 magenta version 1 - 12.12.2018



Appearance:	magenta		
Colour:	magenta.jpg		
Odour:	N.A.		
Odour threshold:	N.A.		
pH:	8,9	DIN 19268	
Melting point / freezing	N.A.		
point:			
Initial boiling point and	N.A.		
boiling range:			
Flash point:	97 ° C		
Evaporation rate:	N.A.		
Solid/gas flammability:	N.A.		
Upper/lower flammability	N.A.		
or explosive limits:			
Vapour pressure:	N.A.		
Vapour density:	N.A.		
Relative density:	1.06	ISO 1183	
Solubility in water:	soluble		
Solubility in oil:	N.A.		
Partition coefficient	N.A.		
(n-octanol/water):			
Auto-ignition temperature:	N.A.		
Decomposition	N.A.		
temperature:			
Viscosity:	2 - 6 cps	ISO 2555	
Explosive properties:	N.A.		
Oxidizing properties:	N.A.		

9.2. Other information

Properties	Value	Method:	Notes	
Miscibility:	N.A.			
Fat Solubility:	N.A.			
Conductivity:	N.A.			
Substance Groups relevant properties	N.A.			

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - Stable under normal conditions
- 10.2. Chemical stability
 - Stable under normal conditions
- 10.3. Possibility of hazardous reactions None
- 10.4. Conditions to avoid
 - Stable under normal conditions.
- 10.5. Incompatible materials None in particular.
- 10.6. Hazardous decomposition products None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects Toxicological information of the product: N.A.

Page n. 4 of 7



According to Regulation (EG) 1907/2006 (REACH)

Trade name: HP344 magenta

version 1 - 12.12.2018

Toxicological information of the main substances found in the product:

N.Ă.

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

a) acute toxicity;

b) skin corrosion/irritation;

c) serious eye damage/irritation;

d) respiratory or skin sensitisation;

e) germ cell mutagenicity;

- f) carcinogenicity;
- g) reproductive toxicity;

h) STOT-single exposure;

- i) STOT-repeated exposure;
- j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

N.A.

- 12.2. Persistence and degradability
 - N.A.
- 12.3. Bioaccumulative potential N.A.
- 12.4. Mobility in soil
 - N.A.
- 12.5. Results of PBT and vPvB assessment vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

- 14.2. UN proper shipping name
 - N.A.
- 14.3. Transport hazard class(es) N.A.
- 14.4. Packing group

N.A.

- 14.5. Environmental hazards ADR-Enviromental Pollutant: No IMDG-Marine pollutant: No
- 14.6. Special precautions for user N.A.
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code N.A.



According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 magenta version 1 - 12.12.2018

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture Dir. 98/24/EC (Risks related to chemical agents at work) Dir. 2000/39/EC (Occupational exposure limit values) Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013 Regulation (EG) 1907/2006 (REACH) Regulation (EU) n. 286/2011 (ATP 2 CLP) Regulation (EU) n. 618/2012 (ATP 3 CLP) Regulation (EU) n. 487/2013 (ATP 4 CLP) Regulation (EU) n. 944/2013 (ATP 5 CLP) Regulation (EU) n. 605/2014 (ATP 6 CLP) Regulation (EU) n. 2015/1221 (ATP 7 CLP) Regulation (EU) n. 2016/918 (ATP 8 CLP) Regulation (EU) n. 2016/1179 (ATP 9 CLP) Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications: Restrictions related to the product: **Restriction 40** Restrictions related to the substances contained: No restriction. Where applicable, refer to the following regulatory provisions : Directive 2012/18/EU (Seveso III) Regulation (EC) nr 648/2004 (detergents). Dir. 2004/42/EC (VOC directive) Dir. 2004/42/EC (VOC directive)
- Dir. 2004/42/EC (VOC directive)

WGK Classification (Water hazard class - Verwaltungsvorschrift wassergefĤhrdende Stoffe)

Provisions related to directive EU 2012/18 (Seveso III): Seveso III category according to Annex 1, part 1

Product belongs to	Lower-tier	Upper-tier
category:	threshold (tonnes)	threshold (tonnes)
None		

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

- Full text of phrases referred to in Section 3:
 - H302 Harmful if swallowed.
 - H318 Causes serious eye damage.
 - H225 Highly flammable liquid and vapour.
 - H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Hazard class and	Code	Description	
hazard category			



According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 magenta

versio<u>n 1 - 12.12.2018</u>

Flam. Liq. 2	2.6/2	Flammable liquid, Category 2	
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4	
Eye Dam. 1	3.3/1	Serious eye damage, Category 1	
Eye Irrit. 2	3.3/2	Eye irritation, Category 2	
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3	

This safety data sheet has been completely updated in compliance to Regulation 2015/830.

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

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This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of
CAS:	Dangerous Goods by Road. Chemical Abstracts Service (division of the American Chemical
CLP:	Society). Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS: GefStoffVO:	European Inventory of Existing Commercial Chemical Substances.
GHS:	Ordinance on Hazardous Substances, Germany. Globally Harmonized System of Classification and Labeling of
ono.	Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Áviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
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PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.

According to Regulation (EG) 1907/2006 (REACH) Trade name: HP344 yellow version 1 - 12.12.2018



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

- 1.1. Product identifier Mixture identificat
 - Mixture identification:Trade name:HP344 yellowTrade code:K20120W4
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
- 1.3. Details of the supplier of the safety data sheet Supplier:

Armor S.A.S CS 90508, 44105 Nantes Cedex 4, France Tel.: +33 (0) 240384000 Fax: +33 (0) 240384001 sds.de@armor-group.com http://www.armor-group.com

1.4. Emergency telephone number +33 (0)240384000

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture EC regulation criteria 1272/2008 (CLP) The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). Adverse physicochemical, human health and environmental effects: No other hazards 2.2. Label elements The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). Hazard pictograms: None Hazard statements: None Precautionary statements: None Special Provisions: None Special provisions according to Annex XVII of REACH and subsequent amendments: None 2.3. Other hazards vPvB Substances: None - PBT Substances: None Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty Name Ident. Number Classification



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510	11 1 - 12.12				
	>= 7% - < 10%	2,2' -oxybisethanol; diethylene glycol	Index number:	603-140-00-6	3.1/4/Oral Acute Tox. 4 H302
			CAS:	111-46-6	
			EC:	203-872-2	
	>= 5% - < 7%	2-[2-(2-butoxyethoxy)et hoxy]ethanol; TEGBE;	Index number:	603-183-00-0	3.3/1 Eye Dam. 1 H318
		triethylene glycol	CAS:	143-22-6	
		monobutyl ether;	EC:	205-592-6	
		butoxytriethylene			
		glycol			
	>= 1% - < 3%	propan-2-ol; isopropyl alcohol; isopropanol	Index number:	603-117-00-0	🤨 2.6/2 Flam. Liq. 2 H225
	< J /0		CAS:	67-63-0	3.3/2 Eye Irrit. 2 H319
			EC:	200-661-7	🚯 3.8/3 STOT SE 3 H336

SECTION 4: First aid measures

- 4.1. Description of first aid measures
- In case of skin contact:
 - Wash with plenty of water and soap.
- In case of eyes contact:
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of Ingestion:
 - Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
- In case of Inhalation:
 - Remove casualty to fresh air and keep warm and at rest.
- 4.2. Most important symptoms and effects, both acute and delayed
 - None
- 4.3. Indication of any immediate medical attention and special treatment needed Treatment:
 - None

SECTION 5: Firefighting measures

- 5.1. Extinguishing media
 - Suitable extinguishing media:
 - Water.
 - Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:

- None in particular.
- 5.2. Special hazards arising from the substance or mixture Do not inhale explosion and combustion gases. Burning produces heavy smoke.
- 5.3. Advice for firefighters
 - Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures Wear personal protection equipment. Remove persons to safety.
 - See protective measures under point 7 and 8.
- 6.2. Environmental precautions
 - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.



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 - Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

- Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
- Wash with plenty of water. 6.4. Reference to other sections
 - See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
 - Avoid contact with skin and eyes, inhaltion of vapours and mists. Don't use empty container before they have been cleaned.
 - Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
 - Contamined clothing should be changed before entering eating areas.
 - Do not eat or drink while working.
 - See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities Keep away from food, drink and feed. Incompatible materials: None in particular. Instructions as regards storage premises:
 - Adequately ventilated premises.
- 7.3. Specific end use(s) None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

- OEL Type: ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Notes: A4, BEI - Eye and URT irr, CNS impair

- **DNEL Exposure Limit Values**
 - N.Á.

PNEC Exposure Limit Values

- N.A.
- 8.2. Exposure controls
- Eye protection:
 - Not needed for normal use. Anyway, operate according good working practices.
- Protection for skin:
- No special precaution must be adopted for normal use.
- Protection for hands:
 - Not needed for normal use.
- Respiratory protection:
- Not needed for normal use.
- Thermal Hazards:
 - None
- Environmental exposure controls:
 - None
- Appropriate engineering controls:
 - None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties Value Method: Notes

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Appearance:	yellow		
Colour:	Yellow		
Odour:	N.A.		
Odour threshold:	N.A.		
pH:	8,9	DIN 19268	
Melting point / freezing point:	N.A.		
Initial boiling point and boiling range:	N.A.		
Flash point:	97 ° C		
Evaporation rate:	N.A.		
Solid/gas flammability:	N.A.		
Upper/lower flammability or explosive limits:	N.A.		
Vapour pressure:	N.A.		
Vapour density:	N.A.		
Relative density:	1.04	ISO 1183	
Solubility in water:	soluble		
Solubility in oil:	N.A.		
Partition coefficient (n-octanol/water):	N.A.		
Auto-ignition temperature:	N.A.		
Decomposition temperature:	N.A.		
Viscosity:	2 - 6 cps	ISO 2555	
Explosive properties:	N.A.		
Oxidizing properties:	N.A.		

9.2. Other information

Properties	Value	Method:	Notes	
Miscibility:	N.A.			
Fat Solubility:	N.A.			
Conductivity:	N.A.			
Substance Groups relevant properties	N.A.			

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - Stable under normal conditions
- 10.2. Chemical stability
 - Stable under normal conditions
- 10.3. Possibility of hazardous reactions None
- 10.4. Conditions to avoid
 - Stable under normal conditions.
- 10.5. Incompatible materials None in particular.
- 10.6. Hazardous decomposition products None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects Toxicological information of the product: N.A.

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Tovioological inform

Toxicological information of the main substances found in the product:

N.A.

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

a) acute toxicity;

b) skin corrosion/irritation;

c) serious eye damage/irritation;

d) respiratory or skin sensitisation;

e) germ cell mutagenicity;

- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

N.A.

- 12.2. Persistence and degradability
 - N.A.
- 12.3. Bioaccumulative potential N.A.
- 12.4. Mobility in soil
 - N.A.
- 12.5. Results of PBT and vPvB assessment vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

- 14.2. UN proper shipping name
 - N.A.
- 14.3. Transport hazard class(es) N.A.
- 14.4. Packing group

N.A.

- 14.5. Environmental hazards ADR-Enviromental Pollutant: No IMDG-Marine pollutant: No
- 14.6. Special precautions for user N.A.
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code N.A.



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- **SECTION 15: Regulatory information** 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture Dir. 98/24/EC (Risks related to chemical agents at work) Dir. 2000/39/EC (Occupational exposure limit values) Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013 Regulation (EG) 1907/2006 (REACH) Regulation (EU) n. 286/2011 (ATP 2 CLP) Regulation (EU) n. 618/2012 (ATP 3 CLP) Regulation (EU) n. 487/2013 (ATP 4 CLP) Regulation (EU) n. 944/2013 (ATP 5 CLP) Regulation (EU) n. 605/2014 (ATP 6 CLP) Regulation (EU) n. 2015/1221 (ATP 7 CLP) Regulation (EU) n. 2016/918 (ATP 8 CLP) Regulation (EU) n. 2016/1179 (ATP 9 CLP) Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications: Restrictions related to the product: **Restriction 40** Restrictions related to the substances contained: No restriction. Where applicable, refer to the following regulatory provisions : Directive 2012/18/EU (Seveso III) Regulation (EC) nr 648/2004 (detergents). Dir. 2004/42/EC (VOC directive)
 - Dir. 2004/42/EC (VOC directive)

WGK Classification (Water hazard class - Verwaltungsvorschrift wassergefĤhrdende Stoffe)

Provisions related to directive EU 2012/18 (Seveso III): Seveso III category according to Annex 1, part 1

···· J ···	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
None		

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

- Full text of phrases referred to in Section 3:
 - H302 Harmful if swallowed.
 - H318 Causes serious eye damage.
 - H225 Highly flammable liquid and vapour.
 - H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Hazard class and	Code	Description	
hazard category			

Wecare by Armor

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12.12.2010		
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure,
		Category 3

This safety data sheet has been completely updated in compliance to Regulation 2015/830.

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This Safety Data Sheet is only for the Armor product mentioned after "Product name : " in SECTION 1 - All use for other products is strictly forbidden.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO: GHS:	Ordinance on Hazardous Substances, Germany. Globally Harmonized System of Classification and Labeling of
GHS.	Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
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