

1 Identification

- **Product identifier**
 - *Product number* HTC406
 - *Trade name:* **WB METALLIZED P. MEDIUM G**
 - *Application of the substance / the mixture* For professional use
- **Details of the supplier of the safety data sheet**
 - *Manufacturer/Supplier:*
IVM Chemicals srl
Viale della Stazione 3 - 27020 Parona (PV) Italy tel +39 038425441
 - *Information department:*
Environmental Health and safety office
hseoffice@ivmchemicals.com
 - *Emergency telephone number:*
ChemTel Expert Assistance Hotline/SDS Fax Access by dialing 1-800-255-3924 or for International +1-813-248-0585.

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

- *GHS label elements*

The product is classified and labeled according to the Globally Harmonized System (GHS).

- *Hazard pictograms*



GHS08

- *Signal word* Danger

- *Hazard-determining components of labeling:*
ethylenediamine

- *Hazard statements*

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

- *Precautionary statements*

P284 [In case of inadequate ventilation] wear respiratory protection.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P280 Wear protective gloves.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P321

Specific treatment (see on this label).

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture: consisting of the following components.

· **Dangerous components:**

111-76-2	2-butoxyethanol	25-29.9%
	Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319 Flam. Liq. 4, H227	
107-15-3	ethylenediamine	0.1-<0.5%
	Flam. Liq. 3, H226 Resp. Sens. 1, H334 Skin Corr. 1B, H314 Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Take off immediately all contaminated clothing, include underwear and shoes (if necessary).

Rinse thoroughly with plenty of water for at least 20 minutes and take medical advise. If medical advise is needed have products container or label at hand.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** Do not induce vomiting; immediately call for medical help.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed**

For symptoms and effects caused by substances, refer to Section 11.

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- *Indication of any immediate medical attention and special treatment needed*
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**

- *Suitable extinguishing agents:*

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

- **Advice for firefighters**

Cool by spraying with water the containers to prevent product decomposition and the development of substances potentially hazardous for health and also, in the case of closed containers exposed to flames to prevent explosions.

- *Protective equipment:*

Hardhat with visor, fireproof clothing, suitable gloves and if necessary respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Keep away from ignition sources

- **Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to Section 13.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**

- **PAC-1:**

107-98-2	1-methoxy-2-propanol	100 ppm
107-15-3	ethylenediamine	0.88 ppm
108-01-0	2-dimethylaminoethanol	3.7 ppm

- **PAC-2:**

107-98-2	1-methoxy-2-propanol	160 ppm
107-15-3	ethylenediamine	9.7 ppm
108-01-0	2-dimethylaminoethanol	40 ppm

- **PAC-3:**

107-98-2	1-methoxy-2-propanol	660 ppm
107-15-3	ethylenediamine	20 ppm
108-01-0	2-dimethylaminoethanol	72 ppm

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7 Handling and storage

- **Handling:**

- *Precautions for safe handling* Ensure good ventilation/exhaustion at the workplace.
- *Information about protection against explosions and fires:* No special measures required.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- *Requirements to be met by storerooms and receptacles:*

Observe the label precautions, the expiration date for the use, if not indicated, is from delivery date of goods.

In cases where there is no reported expiration date, it means that the product must be used within 8 months.

Take on temperature greater than 5 °C

- *Information about storage in one common storage facility:* Not required.

- *Further information about storage conditions:* Keep receptacle tightly sealed.

- **Specific end use(s)** Those typical of the product and the instructions in the data sheet if required.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- *Components with limit values that require monitoring at the workplace:*

111-76-2 2-butoxyethanol

PEL Long-term value: 240 mg/m , 50 ppm
Skin

REL Long-term value: 24 mg/m , 5 ppm
Skin

TLV Long-term value: 97 mg/m , 20 ppm
BEI

107-15-3 ethylenediamine

PEL Long-term value: 25 mg/m , 10 ppm

REL Long-term value: 25 mg/m , 10 ppm

TLV Long-term value: 25 mg/m , 10 ppm
Skin

- *Ingredients with biological limit values:*

111-76-2 2-butoxyethanol

BEI 200 mg/g creatinine
Medium: urine
Time: end of shift
Parameter: Butoxyacetic acid with hydrolysis

• *Additional information:* The lists that were valid during the creation were used as basis.

- **Exposure controls**

- *Personal protective equipment:*

- *General protective and hygienic measures:*

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

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· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

Due to missing tests no recommendation to the glove material can be given for the product. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The glove material has to be impermeable and resistant to the product .

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:**

Fluid

· **Color:**

According to product specification

· **Odor:**

Characteristic

· **Odor threshold:**

Not determined.

· **pH-value:**

Not determined.

· **Change in condition**

· **Melting point/Melting range:**

Undetermined.

· **Boiling point/Boiling range:**

100 °C (212 °F)

· **Flash point:**

Not applicable.

· **Flammability (solid, gaseous):**

Not applicable.

· **Ignition temperature:**

240 °C (464 °F)

· **Decomposition temperature:**

Not determined.

· **Auto igniting:**

Product is not selfigniting.

· **Danger of explosion:**

Product does not present an explosion hazard.

· **Explosion limits:**

· **Lower:**

1.1 Vol %

· **Upper:**

10.6 Vol %

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· Vapor pressure at 20 °C (68 °F):	1.2 hPa (1 mm Hg)
· Density at 20 °C (68 °F):	1.245 g/cm (10.39 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
· Dynamic:	Not determined.
· Kinematic at 20 °C (68 °F):	60 s (ISO 6 mm)
· Oxidising properties:	N.A.
· Solvent content:	
· Water:	40.7 %
· VOC content:	29.0 %
	361.0 g/l / 3.01 lb/gl
· Solids content:	30.2 %
· Other information (HAPS)	
	None of the ingredients is listed.
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** typical of the product as indicated in the data sheet
 - **Chemical stability** The product is stable in normal conditions of storage and use recommended
 - **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

111-76-2 2-butoxyethanol

Oral	LD50	1480 mg/kg (rat/szczur/mouse/souris/Maus/ratón)
Dermal	LD50	1100 mg/kg (rab)

107-15-3 ethylenediamine

Oral	LD50	500 mg/kg (rat/szczur/mouse/souris/Maus/ratón)
Dermal	LD50	730 mg/kg (rabbit/królik/Kaninchen/conejo/lapin)
Inhalative	LC50/4 h	0.3 mg/l (mouse)

· Primary irritant effect:

- on the skin: Irritant to skin and mucous membranes.

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- *on the eye:* Irritating effect.
- *Sensitization:*
Sensitization possible through inhalation.
Sensitization possible through skin contact.
- *Additional toxicological information:*
Harmful
Irritant
- *Carcinogenic categories*

· <i>IARC (International Agency for Research on Cancer - Cl. 1 and 2)</i>

None of the ingredients is listed.

· <i>NTP (National Toxicology Program)</i>
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None of the ingredients is listed.

· <i>OSHA-Ca (Occupational Safety & Health Administration)</i>
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None of the ingredients is listed.

12 Ecological information

· Toxicity

· <i>Aquatic toxicity:</i>

111-76-2 2-butoxyethanol

EC50	101 mg/l (daphnia) (24 h)
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LC50 (96h)	101 mg/l (Fish)
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- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
 - *Bioaccumulative potential* No further relevant information available.
 - *Mobility in soil* No further relevant information available.
- **Additional ecological information:**
 - *General notes:*
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

· Waste treatment methods

- *Recommendation:*

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Hand over to hazardous waste disposers.

Dispose of contents and container in accordance with local state and federal regulations.

· Uncleaned packagings:

- *Recommendation:* Disposal must be made according to official regulations.

- *Recommended cleansing agent:* Water, if necessary with cleansing agents.

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14 Transport information

· UN-Number	
· DOT, ADN, IMDG, IATA	Not applicable
· UN proper shipping name	
· DOT, ADN, IMDG, IATA	Not applicable
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Not applicable
· Packing group	
· DOT, IMDG, IATA	Not applicable
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	Not applicable

15 Regulatory information

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

Requirements of Federal Register

· SARA

· Section 355 (extremely hazardous substances):

107-15-3	ethylenediamine	0.1-<0.5%
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· Section 313 (Specific toxic chemical listings) :

111-76-2	2-butoxyethanol	25-29.9%
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· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

1589-47-5	2-methoxypropanol	<0.01%
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· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

111-76-2	2-butoxyethanol	NL	25-29.9%
107-15-3	ethylenediamine	D	0.1-<0.5%

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· TLV (Threshold Limit Value established by ACGIH)		
111-76-2	2-butoxyethanol	A3
107-15-3	ethylenediamine	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		

· **National regulations:**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** IVM Chemicals Srl

- **Contact:** See emergency phone

- **Date of preparation / last revision** 01/20/2017 / 9

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flam. Liq. 3: Flammable liquids . Category 3

Flam. Liq. 4: Flammable liquids . Category 4

Acute Tox. 4: Acute toxicity . Category 4

Skin Corr. 1B: Skin corrosion/irritation . Category 1B

Skin Irrit. 2: Skin corrosion/irritation . Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation . Category 2A

Resp. Sens. 1: Respiratory sensitisation . Category 1

Skin Sens. 1: Skin sensitisation . Category 1

· **Sources**

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL and following amendments

Directive 67/548/EEC and following amendments and adjustments

Agency ECHA web site

INRS Fiche Toxicologique

IARC International agency for research on cancer