

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced 1)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** A.M.P.E.R.E. Traffic Paint
Road marking paint
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Paint for traffic signs
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:** A.M.P.E.R.E. SYSTEM
3 Rue Antoine Balard - P.A. du Vert Galant
95310 Saint-Ouen-l'Aumône - France
Tel: +33 1 34 64 72 72
Fax: +33 1 30 37 55 17
E-mail: fds@amperesystem.com
- 1.4 Emergency telephone number:** 0344 892 0111

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

CLP Regulation (EC) n° 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412

Asp. Tox. 1: Aspiration hazard, Category 1, H304

Flam. Liq. 2: Flammable liquids, Category 2, H225

Lact.: Reproductive toxicity, effects on or via lactation, H362

Repr. 2: Reproductive toxicity, Category 2, H361d

Skin Irrit. 2: Skin irritation, Category 2, H315

STOT RE 2: Specific target organ toxicity, repeated exposure, Category 2, H373

2.2 Label elements:

CLP Regulation (EC) n° 1272/2008:

Danger



Hazard statements:

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects

Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways

Flam. Liq. 2: H225 - Highly flammable liquid and vapour

Lact.: H362 - May cause harm to breast-fed children

Repr. 2: H361d - Suspected of damaging the unborn child.

Skin Irrit. 2: H315 - Causes skin irritation

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand

P102: Keep out of reach of children

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P264: Wash thoroughly after use

P280: Wear protective gloves/protective clothing/eye protection/face protection

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

P370+P378: In case of fire: Use ABC powder extinguisher to extinguish.

P501: Dispose of contents and / or their container according to the separated collection system used in your municipality

Supplementary information:

EUH208: Contains Butanone oxime. May produce an allergic reaction

Substances that contribute to the classification

Toluene

2.3 Other hazards:

- CONTINUED ON NEXT PAGE -

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced 1)

SECTION 2: HAZARDS IDENTIFICATION (continue)

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture composed of additives, aggregates, pigments and resins in solvents

Components:

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 108-88-3 EC: 203-625-9 Index: 601-021-00-3 REACH: 01-2119471310-51-XXXX	Toluene Regulation 1272/2008	Asp. Tox. 1: H304; Flam. Liq. 2: H225; Repr. 2: H361d; Skin Irrit. 2: H315; STOT RE 2: H373; STOT SE 3: H336 - Danger	ATP CLP00 10 - <25 %
CAS: 85535-85-9 EC: 287-477-0 Index: 602-095-00-X REACH: 01-2119519269-33-XXXX	Alkanes, C14-17, chloro Regulation 1272/2008	Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Lact.: H362 - Warning	ATP ATP01 1 - <2,5 %
CAS: 96-29-7 EC: 202-496-6 Index: 616-014-00-0 REACH: 01-2119539477-28-XXXX	Butanone oxime Regulation 1272/2008	Acute Tox. 4: H312; Carc. 2: H351; Eye Dam. 1: H318; Skin Sens. 1: H317 - Danger	ATP CLP00 <1 %
CAS: 872-50-4 EC: 212-828-1 Index: 606-021-00-7 REACH: 01-2119472430-46-XXXX	N-methyl-2-pyrrolidone Regulation 1272/2008	Eye Irrit. 2: H319; Repr. 1B: H360D; Skin Irrit. 2: H315; STOT SE 3: H335 - Danger	ATP ATP01 <1 %

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

This product is not classified as dangerous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head up to avoid inhalation. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Non-applicable

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media:**

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂). IT IS RECOMMENDED NOT to use tap water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures:**

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling:****A.- Precautions for safe manipulation**

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 94/9/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137). Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced 1)

SECTION 7: HANDLING AND STORAGE (continue)

PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in fixed places that comply with the necessary security conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to containers of small amounts. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 °C
 Maximun Temp.: 30 °C
 Maximum time: 6 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the work environment

Identification	Environmental limits		
	IOELV (8h)	50 ppm	192 mg/m ³
Toluene CAS: 108-88-3 EC: 203-625-9	IOELV (STEL)	100 ppm	384 mg/m ³
	Year	2014	
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	IOELV (8h)	10 ppm	40 mg/m ³
	IOELV (STEL)	20 ppm	80 mg/m ³
	Year	2014	

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Toluene CAS: 108-88-3 EC: 203-625-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	384 mg/kg	Non-applicable
	Inhalation	384 mg/m ³	384 mg/m ³	192 mg/m ³	192 mg/m ³
Alkanes, C14-17, chloro CAS: 85535-85-9 EC: 287-477-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	47,9 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	6,7 mg/m ³	Non-applicable
Butanone oxime CAS: 96-29-7 EC: 202-496-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	2,5 mg/kg	Non-applicable	1,3 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	9 mg/m ³	3,33 mg/m ³
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	208 mg/kg	Non-applicable	19,8 mg/kg	Non-applicable
	Inhalation	80 mg/m ³	Non-applicable	40 mg/m ³	Non-applicable

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Toluene CAS: 108-88-3 EC: 203-625-9	Oral	Non-applicable	Non-applicable	8,13 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	226 mg/kg	Non-applicable
	Inhalation	226 mg/m ³	226 mg/m ³	56,5 mg/m ³	56,5 mg/m ³

- CONTINUED ON NEXT PAGE -

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced 1)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Alkanes, C14-17, chloro CAS: 85535-85-9 EC: 287-477-0	Oral	Non-applicable	Non-applicable	0,58 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	28,75 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2 mg/m ³	Non-applicable
Butanone oxime CAS: 96-29-7 EC: 202-496-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	1,5 mg/kg	Non-applicable	0,78 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2,7 mg/m ³	2 mg/m ³
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	Oral	26 mg/kg	Non-applicable	6,3 mg/kg	Non-applicable
	Dermal	125 mg/kg	Non-applicable	11,9 mg/kg	Non-applicable
	Inhalation	80 mg/m ³	Non-applicable	12,5 mg/m ³	Non-applicable

PNEC:

Identification				
Toluene CAS: 108-88-3 EC: 203-625-9	STP	13,61 mg/L	Fresh water	0,68 mg/L
	Soil	2,89 mg/kg	Marine water	0,68 mg/L
	Intermittent	0,68 mg/L	Sediment (Fresh water)	16,39 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	16,39 mg/kg
Alkanes, C14-17, chloro CAS: 85535-85-9 EC: 287-477-0	STP	80 mg/L	Fresh water	0,001 mg/L
	Soil	11,9 mg/kg	Marine water	0,0002 mg/L
	Intermittent	Non-applicable	Sediment (Fresh water)	13 mg/kg
	Oral	10 g/kg	Sediment (Marine water)	2,6 mg/kg
Butanone oxime CAS: 96-29-7 EC: 202-496-6	STP	177 mg/L	Fresh water	0,256 mg/L
	Soil	Non-applicable	Marine water	Non-applicable
	Intermittent	0,118 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	STP	10 mg/L	Fresh water	0,25 mg/L
	Soil	0,138 mg/kg	Marine water	0,025 mg/L
	Intermittent	5 mg/L	Sediment (Fresh water)	1,42 mg/kg
	Oral	1,67 g/kg	Sediment (Marine water)	0,142 mg/kg

8.2 Exposure controls:

A.- General security and hygiene measures in the work place

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the professional exposure limits. In case of using individual protection equipment they should have the CE marking in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours		EN 405:2001+A1:2009	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves		EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

D.- Ocular and facial protection

- CONTINUED ON NEXT PAGE -

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced 1)

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face mask		EN 166:2001 EN 167:2001 EN 168:2001 EN 172:1994/A1:2000 EN 172:1994/A2:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Bodily protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2001 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties		EN 13287:2008 EN ISO 20345:2011 EN 13832-1:2006 EN ISO 20344:2011	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	19,16 % weight
V.O.C. density at 20 °C:	327,8 kg/m ³ (327,8 g/L)
Average carbon number:	6,9
Average molecular weight:	91,97 g/moi

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Not available
Color:	Not available
Odor:	Not available

Volatility:

Boiling point at atmospheric pressure:	112 °C
Vapour pressure at 20 °C:	2883 Pa
Vapour pressure at 50 °C:	11930 Pa (12kPa)
Evaporation rate at 20 °C:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced 1)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continue)

Product description:

Density at 20 °C:	1711 kg/m ³
Relative density at 20°C:	1,711
Dynamic viscosity at 20 °C:	2,01 cP
Kinematic viscosity at 20 °C:	1,17 cSt
Kinematic viscosity at 40 °C:	<20,5 cSt
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20°C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *

Flammability:

Flash Point:	6 °C
Autoignition temperature:	315 °C
Lower flammability limit:	Not available
Upper flammability limit:	Not available

9.2 Other information:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected if the following technical instructions storage of chemicals. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Not applicable	Not applicable	Avoid direct impact	Not applicable	Not applicable

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

- CONTINUED ON NEXT PAGE -

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced 1)

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A.- Ingestion:

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation:

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes:

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous with carcinogenic effects. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Suspected of damaging the unborn child.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensibilising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous with sensibilising effects. For more information see section 3.

F- Specific target organ toxicity (STOT)-time exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentrations can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of concentration.
- Skin: Based on available data, the classification criteria are not met, however, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.

H- Aspiration hazard:

The consumption of a considerable dose can cause pulmonary damage.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Toluene CAS: 108-88-3 EC: 203-625-9	5580 mg/kg	12124 mg/kg	Rat
Alkanes, C14-17, chloro CAS: 85535-85-9 EC: 287-477-0	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	Non-applicable	
N-methyl-2-pyrrolidone CAS: 372-50-4 EC: 212-828-1	LD50 oral	3598 mg/kg	Rat
	LD50 dermal	7000 mg/kg	Rat
	LC50 inhalation	Non-applicable	

- CONTINUED ON NEXT PAGE -

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced 1)

Identification	Acute toxicity		Genus
Butanone oxime	LD50 oral	2100 mg/kg	Rat
CAS: 96-29-7	LD50 dermal	1100 mg/kg	Rat
EC: 202-496-6	LC50 inhalation	Non-applicable	

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
Toluene CAS: 108-88-3 EC: 203-625-9	LC50	13 mg/L (96 h)	Carassius auratus	Fish
	EC50	11,5 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	125 mg/L (48 h)	Scenedesmus subspicatus	Algae
Alkanes, C14-17, chloro CAS: 85535-85-9 EC: 287-477-0	LC50	0,1 - 1 mg/L (96 h)		Fish
	EC50	0,1 - 1 mg/L		Crustacean
	EC50	0,1 - 1 mg/L		Algae
Butanone oxime CAS: 96-29-7 EC: 202-496-6	LC50	843 mg/L (96 h)	Pimephales promelas	Fish
	EC50	750 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	83 mg/L (72 h)	Scenedesmus subspicatus	Algae
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	LC50	832 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	4897 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	500 mg/L (72 h)	Scenedesmus subspicatus	Algae

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
Toluene CAS: 108-88-3 EC: 203-625-9	BOD5	2,5 g O2/g	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	100 %
Butanone oxime CAS: 96-29-7 EC: 202-496-6	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	24 %
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	BOD5	1,09 g O2/g	Concentration	100 mg/L
	COD	1,6 g O2/g	Period	28 days
	BOD5/COD	0,68	% Biodegradable	73 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
Toluene CAS: 108-88-3 EC: 203-625-9	BCF	13
	Pow Log	2,73
	Potential	Low
Butanone oxime CAS: 96-29-7 EC: 202-496-6	BCF	5
	Pow Log	0,59
	Potential	Low
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	BCF	0,23
	Pow Log	-0,46
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Toluene CAS: 108-88-3 EC: 203-625-9	Koc	178	Henry	6,728E+2 Pa·m ³ /mol
	Conclusion	Moderate	Dry soil	Yes
	Surface tension	27930 N/m (25 °C)	Moist soil	Yes

- CONTINUED ON NEXT PAGE -

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced 1)

Identification	Absorption/desorption		Volatility	
Butanone oxime CAS: 96-29-7 EC: 202-496-6	Koc	3	Henry	Non-applicable
	Conclusion	Very High	Dry soil	Non-applicable
	Surface tension	25700 N/m (25 °C)	Moist soil	Non-applicable
N-methyl-2-pyrrolidone CAS: 872-50-4 EC: 212-828-1	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	40070 N/m (25 °C)	Moist soil	Non-applicable

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances	Dangerous

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP3 Flammable, HP10 Toxic for reproduction

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2015 and RID 2015:



- 14.1 UN number:** UN1263
- 14.2 UN proper shipping name:** PAINT
- 14.3 Transport hazard class(es):** 3
- Labels: 3
- 14.4 Packing group:** II
- 14.5 Dangerous for the environment:** No
- 14.6 Special precautions for user**
- Special regulations: 163, 367, 640D, 650
- Tunnel restriction code: D/E
- Physico-Chemical properties: see section 9
- Limited quantities: 5 L
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 37-14:

- CONTINUED ON NEXT PAGE -

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced 1)

SECTION 14: TRANSPORT INFORMATION (continue)



14.1 UN number:	UN1263
14.2 UN proper shipping name:	PAINT
14.3 Transport hazard class(es):	3
Labels:	3
14.4 Packing group:	II
14.5 Dangerous for the environment:	No
14.6 Special precautions for user	
Special regulations:	163, 944
EmS Codes:	F-E, S-E
Physico-Chemical properties:	see section 9
Limited quantities:	5 L
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2015:



14.1 UN number:	UN1263
14.2 UN proper shipping name:	PAINT
14.3 Transport hazard class(es):	3
Labels:	3
14.4 Packing group:	II
14.5 Dangerous for the environment:	No
14.6 Special precautions for user	
Physico-Chemical properties:	see section 9
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): N-methyl-2-pyrrolidone

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable

Active substances for which a decision of non-inclusion onto Annex I (Regulation (EU) No 528/2012): Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII, REACH):

Contains more than 0,1 % of Toluene by weight. The use of this product is prohibited in adhesives or spray paints for sale to the general public.

Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:

- metallic glitter intended mainly for decoration,
- artificial snow and frost,
- "whoopee" cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink bombs.

Specific provisions in terms of protecting people or the environment:

- CONTINUED ON NEXT PAGE -

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced1)

SECTION 15: REGULATORY INFORMATION (continue)

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EU) N° 453/2010, Regulation (EC) N° 2015/830)

Modifications related to the previous security card which concerns the ways of managing risks. :

COMPOSITION/INFORMATION ON INGREDIENTS:

- Removed Content
2-butanone (78-93-3)

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation

H373: May cause damage to organs through prolonged or repeated exposure

H361d: Suspected of damaging the unborn child.

H362: May cause harm to breast-fed children

H412: Harmful to aquatic life with long lasting effects

H304: May be fatal if swallowed and enters airways

H225: Highly flammable liquid and vapour

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) n° 1272/2008:

Acute Tox. 4: H312 - Harmful in contact with skin

Aquatic Acute 1: H400 - Very toxic to aquatic life

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects

Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways

Carc. 2: H351 - Suspected of causing cancer

Eye Dam. 1: H318 - Causes serious eye damage

Eye Irrit. 2: H319 - Causes serious eye irritation

Flam. Liq. 2: H225 - Highly flammable liquid and vapour

Lact.: H362 - May cause harm to breast-fed children

Repr. 1B: H360D - May damage the unborn child.

Repr. 2: H361d - Suspected of damaging the unborn child.

Skin Irrit. 2: H315 - Causes skin irritation

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

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure

STOT SE 3: H335 - May cause respiratory irritation

STOT SE 3: H336 - May cause drowsiness or dizziness

Classification procedure:

Skin Irrit. 2: Calculation method

STOT RE 2: Calculation method

Repr. 2: Calculation method

Lact.: Calculation method

Aquatic Chronic 3: Calculation method

Asp. Tox. 1: Calculation method

Flam. Liq. 2: Calculation method (2.6.4.3)

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

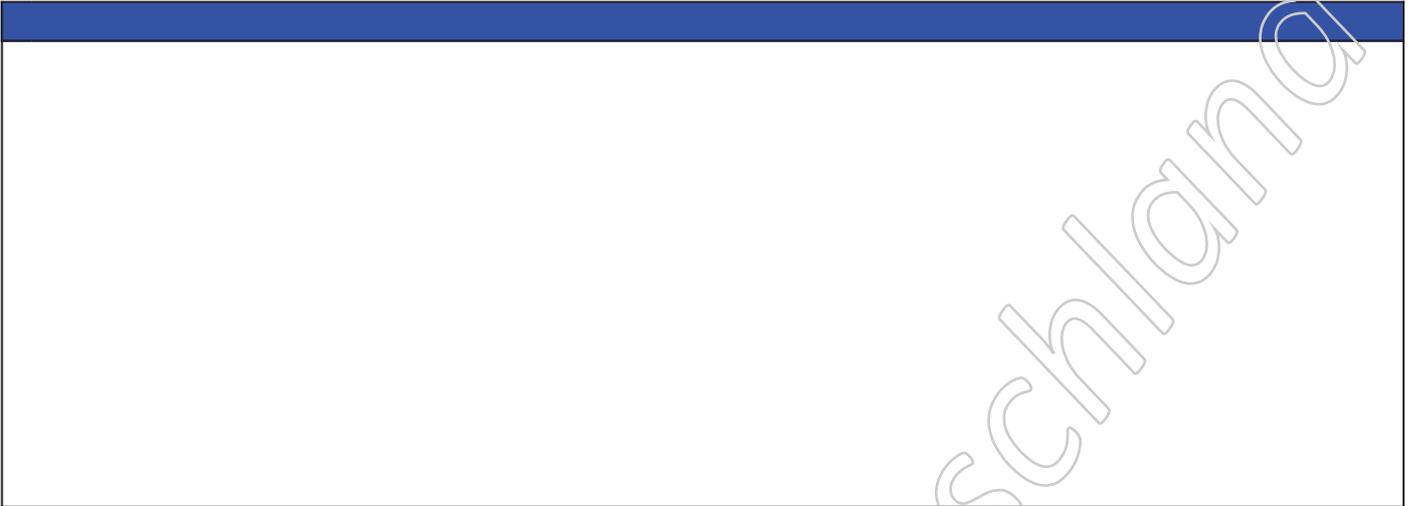
- CONTINUED ON NEXT PAGE -

Safety data sheet

According to 1907/2006/EC (REACH), 453/2010/EU, 2015/830/EU

Date of compilation: 11/16/2015 Revised: 11/19/2015

Version: 2 (Replaced1)



M.M.P.e.r.e. Deutschland

The information contained in this security data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this security data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -