SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

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

1.1. Product identifier

Product name : AMPERE TRAFFIC PAINT
Product code : TRA

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

Registered company name : A.M.P.E.R.E. SYSTEM .
Address : 3 rue Antoine Balard - Z.I. du Vert Galant.95310.Saint-Ouen-l'Aumône .FRANCE.
Telephone : +33 1 34 64 72 72. Fax : +33 1 30 37 55 17.
fds@amperesystem.com

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA http://www.centres-antipoison.net.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Flammable aerosol, Category 1 (Aerosol 1, H222 - H229).
Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H336).
This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Extremely flammable (F+, R 12).
Repeated exposure may cause skin dryness or cracking (R 66).
Vapours may cause drowsiness and dizziness (R 67).
This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

Mixture for aerosol application.

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :

GHS07 GHS02

Signal Word :
DANGER
Product identifiers :

EC 265-150-3	DEAROMATIZED HYDROCARBONS

Hazard statements :

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H336	May cause drowsiness or dizziness.

Precautionary statements - General :

P102	Keep out of reach of children.

Precautionary statements - Prevention :

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.

Precautionary statements - Storage :

P410 + P412	Protect from sunlight. Do no expose to temperatures exceeding 50 oC/122oF.

Other information :

Reserved for professional users.
Do not use in a confined space.
Not to be used for any usage other than those specified.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table
The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	67/548/EEC	Note	%
CAS: 64742-48-9 EC: 265-150-3 REACH: 01-2119463258-33 DEAROMATIZED HYDROCARBONS	GHS07, GHS08, GHS02 Dgr Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 EUH:066	Xn Xn;R65 R10 R66-R67		10 <= x % < 25
CAS: 75-28-5 EC: 200-857-2 REACH: 01-2119485395-27 ISOBUTANE (CONTENANT MOINS DE 0.1% DE BUTADIENE)	GHS02 Dgr Flam. Gas 1, H220 Press. Gas, H280	F+ F+;R12	[1]	10 <= x % < 25
CAS: 74-98-6 EC: 200-827-9 REACH: 01-9112486944-21 PROPANE	GHS02 Dgr Flam. Gas 1, H220 Press. Gas, H280	F+ F+;R12	[1]	10 <= x % < 25
EC: 927-241-2 REACH: 01-2119471843-32 DEAROMATIZED HYDROCARBONS	GHS07, GHS08, GHS02 Dgr Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 3, H412 EUH:066	Xn Xn;R65 R10 R66-R67-R52/53		2.5 <= x % < 10
INDEX: 607-022-00-5 CAS: 141-78-6 EC: 205-500-4 ETHYL ACETATE	GHS02, GHS07 Dgr Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH:066	Xi,F Xi;R36 F;R11 R66-R67	[1]	2.5 <= x % < 10

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation :

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.
If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

In the event of splashes or contact with eyes :

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.

In the event of swallowing :

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.
Keep the person exposed at rest. Do not force vomiting.
Seek medical attention, showing the label.
If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Flammable.
Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.

Suitable methods of extinction

In the event of a fire, use :
- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- halon
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO2)

Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction

In the event of a fire, do not use :
- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.
Do not breathe in smoke.
In the event of a fire, the following may be formed :
- carbon monoxide (CO)
- carbon dioxide (CO2)

5.3. Advice for firefighters

Fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.
Avoid inhaling the vapors.
If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.
Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.
Remove and wash contaminated clothing before re-using.
Ensure that there is adequate ventilation, especially in confined areas.

Fire prevention :

Handle in well-ventilated areas.
Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.
Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.
Do not spray on a naked flame or any incandescent material.
Do not pierce or burn, even after use.
Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.
Keep packages tightly closed and away from sources of heat, sparks and naked flames.
Do not use tools which may produce sparks. Do not smoke.
Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.
Observe precautions stated on label and also industrial safety regulations.
Do not breathe in aerosols.
Avoid inhaling vapors.
Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.
Provide vapor extraction at the emission source and also general ventilation of the premises.
Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.
In all cases, recover emissions at source.
Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep out of reach of children.
Keep the container tightly closed in a dry, well-ventilated place.
Keep away from all sources of ignition - do not smoke.
Keep well away from all sources of ignition, heat and direct sunlight.
The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
75-28-5	1000 ppm	-	-	-	-
74-98-6	1000 ppm	-	-	-	-
141-78-6	400 ppm	-	-	-	-

- Denmark (2007) :

CAS	TWA :	TWA :	Anm :			
74-98-6	1000 ppm	1800 mg/m3	-			
141-78-6	150 ppm	540 mg/m3	-			

- France (INRS - ED984 :2008) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :

141-78-6	400	1400	-	-	-	84

- Norway (Veiledning om administrative normer for forurensning i arbeidsatmosfære, May 2007) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
74-98-6	500 ppm	-	-	-	-
141-78-6	150 ppm	-	-	-	-

- Sweden (AFS 2007:2) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	150 ppm	300 ppm	-	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	200 ppm	400 ppm	-	-	-

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

DEAROMATIZED HYDROCARBONS

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	300 mg/kg de poids corporel/jour
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	1500 mg de substance/m3

Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	300 mg/kg de poids corporel/jour
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	300 mg/kg de poids corporel/jour
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	900 mg de substance/m3

DEAROMATIZED HYDROCARBONS (CAS: 64742-48-9)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	300 mg/kg de poids corporel/jour
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	1500 mg de substance/m3

Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	300 mg/kg de poids corporel/jour
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	300 mg/kg de poids corporel/jour
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	900 mg de substance/m3

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Use personal protective equipment that is clean and has been properly maintained.
Store personal protective equipment in a clean place, away from the work area.
Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation,

especially in confined areas.

- Eye / face protection

Avoid contact with eyes.
Use eye protectors designed to protect against liquid splashes
Before handling, wear safety goggles in accordance with standard EN166.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.
Gloves must be selected according to the application and duration of use at the workstation.
Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.
Type of gloves recommended :
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVA (Polyvinyl alcohol)
Recommended properties :
- Impervious gloves in accordance with standard EN374

- Body protection

Work clothing worn by personnel shall be laundered regularly.
After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid breathing vapours.
If the ventilation is insufficient, wear appropriate breathing apparatus.
When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.
Type of FFP mask :
Wear a disposable half-mask aerosol filter in accordance with standard EN149.
Category :
- FFP1
Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :
- A1 (Brown)
Particle filter according to standard EN143 :
- P1 (White)

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	Viscous liquid.
	Spray.

Important health, safety and environmental information

pH :	Not relevant.
Boiling point/boiling range :	Not specified.
Vapour pressure (50°C) :	Not relevant.
Density :	< 1
Water solubility :	Insoluble.
Melting point/melting range :	Not specified.
Self-ignition temperature :	Not specified.
Decomposition point/decomposition range :	Not specified.
Chemical combustion heat :	Not specified.
Inflammation time :	Not specified.
Deflagration density :	Not specified.
Inflammation distance :	Not specified.
Flame height :	Not specified.
Flame duration :	Not specified.

9.2. Other information

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- heating
- heat

10.5. Incompatible materials

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO2)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Splashes in the eyes may cause irritation and reversible damage

Narcotic effects may occur, such as drowsiness, narcosis, decreased alertness, loss of reflexes, lack of coordination or dizziness.

Effects may also occur in the form of violent headaches or nausea, judgement disorder, giddiness, irritability, fatigue or memory disturbance.

11.1.1. Substances

Acute toxicity :

DEAROMATIZED HYDROCARBONS

Oral route :	LD50 > 5000 mg/kg Species : Rat (recommended by the CLP)
Dermal route :	LD50 > 5000 mg/kg Species : Rabbit (recommended by the CLP)
Inhalation route :	LC50 > 4951 mg/m3 Species : Rat (recommended by the CLP)

DEAROMATIZED HYDROCARBONS (CAS: 64742-48-9)

Oral route :	LD50 > 5000 mg/kg Species : Rat
Dermal route :	LD50 > 5000 mg/kg Species : Rabbit
Inhalation route :	LC50 > 4951 mg/m3 Species : Rat

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

DEAROMATIZED HYDROCARBONS (CAS: 64742-48-9)

Fish toxicity :	LC50 > 1000 mg/l Species : Oncorhynchus mykiss Duration of exposure : 96 h

Crustacean toxicity :	EC50 = 1000 mg/l Species : Daphnia magna Duration of exposure : 48 h
Algae toxicity :	ECr50 > 1000 mg/l Species : Pseudokirchnerella subcapitata Duration of exposure : 72 h
Aquatic plant toxicity :	Species : Others

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

DEAROMATIZED HYDROCARBONS

Biodegradability :	no degradability data is available, the substance is considered as not degrading quickly.

DEAROMATIZED HYDROCARBONS (CAS: 64742-48-9)

Biodegradability :	no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

Codes of wastes (Decision 2001/573/EC, Directive 2006/12/EEC, Directive 94/31/EEC on hazardous waste) :

16 05 04 * gases in pressure containers (including halons) containing dangerous substances

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2013 - IMDG 2012 - ICAO/IATA 2014).

14.1. UN number

1950

14.2. UN proper shipping name

UN1950=AEROSOLS, flammable

14.3. Transport hazard class(es)

- Classification :

2.1

14.4. Packing group

-

14.5. Environmental hazards

-

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	2	5F	-	2.1	-	1 L	190 327 344 625	E0	2	D
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ			
	2.1	See SP63	-	SP277	F-D,S-U	63 190 277 327 344 959	E0			
IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ	
	2.1	-	-	203	75 kg	203	150 kg	A145 A167 A145 A167 A802	E0	
	2.1	-	-	Y203	30 kg G	-	-	A145 A167 A802	E0	

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.
For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No data available.

SECTION 15 : REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:
- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- Directive 75/734/CEE modified by directive 2013/10/UE
- EU Regulation No. 1272/2008 amended by EU Regulation No. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.

- Container information:

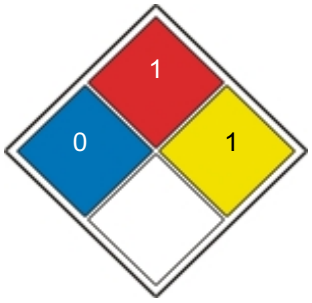
No data available.

- Particular provisions :

No data available.

- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :

NFPA 704, Labelling: Health=0 Inflammability=1 Instability/Reactivity=1 Specific Risk=none



15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.
The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.
It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.
The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Hazard symbols :

Extremely flammable

Risk phrase :

R 12	Extremely flammable.
R 66	Repeated exposure may cause skin dryness or cracking.
R 67	Vapours may cause drowsiness and dizziness.

Safety phrase :

	No smoking.
	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.
	Do not pierce or burn, even after use.
	Do not spray on a naked flame or any incandescent material.
S 33	Take precautionary measures against static discharges.

Title for H, EUH and R indications mentioned in section 3 :

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
R 10	Flammable.
R 11	Highly flammable.
R 12	Extremely flammable.
R 36	Irritating to eyes.
R 52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 65	Harmful: may cause lung damage if swallowed.
R 66	Repeated exposure may cause skin dryness or cracking.
R 67	Vapours may cause drowsiness and dizziness.

Abbreviations :

DNEL : Derived No-Effect Level
ADR : European agreement concerning the international carriage of dangerous goods by Road.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
ICAO : International Civil Aviation Organisation
RID : Regulations concerning the International carriage of Dangerous goods by rail.
WGK : Wassergefahrdungsklasse (Water Hazard Class).
GHS02 : Flame
GHS07 : Exclamation mark