



SAFETY DATA SHEET

2120 Galva-Plus +

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

1.1 Product identifier

Product name : 2120 Galva-Plus +
Product description : Aerosol. Paint.
Product type : Aerosol.

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

Identified uses	
Industrial uses Consumer uses Professional uses	
Uses advised against	Reason
None identified.	-

1.3 Details of the supplier of the safety data sheet

Rust-Oleum Europe - Martin Mathys NV, Kolenbergstraat 23, B-3545 Zelem, Belgium
 Telephone no.: +32 (0) 13 460 200
 Fax no.: +32 (0) 13 460 201

e-mail address of person responsible for this SDS : rpmeurohas@ro-m.com

1.4 Emergency telephone number

Supplier

Telephone number : +44 (0) 207 858 1228
Hours of operation : 24 / 7

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Aerosol 1, H222, H229
 Skin Irrit. 2, H315
 Eye Irrit. 2, H319
 STOT RE 2, H373
 Aquatic Chronic 2, H411

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

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

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

2.2 Label elements

SECTION 2: Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

: Extremely flammable aerosol.
 Pressurised container: May burst if heated.
 Causes serious eye irritation.
 Causes skin irritation.
 May cause damage to organs through prolonged or repeated exposure.
 Toxic to aquatic life with long lasting effects.

Precautionary statements

General

: P102 - Keep out of reach of children.
 P103 - Read label before use.
 P101 - If medical advice is needed, have product container or label at hand.

Prevention

: P210 - Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
 P211 - Do not spray on an open flame or other ignition source.
 P260 - Do not breathe vapour or spray.
 P280 - Wear protective gloves and eye protection:
 - nitrile rubber gloves and Safety glasses with side shields.
 P273 - Avoid release to the environment.
 P251 - Do not pierce or burn, even after use.

Response

: P302 - IF ON SKIN:
 P352 - Wash with plenty of soap and water.
 P305 - IF IN EYES:
 P351 - Rinse cautiously with water for several minutes.
 P338 - Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 - If eye irritation persists:
 P313 - Get medical attention.

Storage

: P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Disposal

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

Hazardous ingredients

: xylene (mixture of isomers)

Supplemental label elements

: Not applicable.

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

: Not applicable.

UFI Code

: Q910-Q0W0-000T-RD TT

Special packaging requirements

Containers to be fitted with child-resistant fastenings

: Not applicable.

Tactile warning of danger

: Yes, applicable.

2.3 Other hazards

Other hazards which do not result in classification

: None known.

SECTION 3: Composition/information on ingredients**3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Classification	
			Regulation (EC) No. 1272/2008 [CLP]	Type
dimethyl ether	EC: 204-065-8 CAS: 115-10-6	≥50 - ≤75	Flam. Gas 1, H220	[2]
xylene (mixture of isomeres)	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7	≥10 - ≤25	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304	[1] [2]
zinc powder, stabilised	REACH #: 01-2119467174-37 EC: 231-175-3 CAS: 7440-66-6 Index: 030-001-01-9	≥10 - ≤25	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
aluminium powder (stabilized)	EC: 231-072-3 CAS: 7429-90-5 Index: 013-002-00-1	≤10	Flam. Sol. 1, H228 Water-react. 2, H261	[2]
hydrocarbons, aromatic, C9	REACH #: 01-2119455851-35 EC: 918-668-5 CAS: 64742-95-6 Index: 649-356-00-4	≤10	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	[1]
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	REACH #: 01-2119463258-33 EC: 919-857-5 Index: 649-327-00-6	≤5	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066	[1] [2]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≤3	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304	[1] [2]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤1	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates	EC: 269-662-8 CAS: 68308-64-5	≤0,3	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=1)	[1]
			See Section 16 for the full text of the H statements declared above.	

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

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

[6] Additional disclosure due to company policy

SECTION 3: Composition/information on ingredients

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations 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 the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
- Additional information** : Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Container explosion may occur under fire conditions or when heated. Bursting aerosol containers may be propelled from a fire at high speed.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

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

SECTION 6: Accidental release measures

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

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

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling : Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses.
Information on fire and explosion protection
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

SECTION 7: Handling and storage

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Do not store above the following temperature: 35°C (95°F). Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Seveso Directive - Reporting thresholds (in tonnes)**Danger criteria**

Category	Notification and MAPP threshold	Safety report threshold
P3a	150	500
E2	200	500

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters**Occupational exposure limits**

Product/ingredient name	Exposure limit values
dimethyl ether	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 958 mg/m ³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 766 mg/m ³ 8 hours. TWA: 400 ppm 8 hours.
xylene (mixture of isomeres)	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 441 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
aluminium powder (stabilized)	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: inhalable dust TWA: 4 mg/m ³ 8 hours. Form: respirable dust
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 850 mg/m ³ , (as turpentine (150 ppm)) 15 minutes. Form: Vapour TWA: 566 mg/m ³ , (as turpentine (100 ppm)) 8 hours. Form: Vapour
ethylbenzene	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 552 mg/m ³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 441 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
xylene (mixture of isomeres)	DNEL	Short term Inhalation	289 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	289 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	174 mg/m ³	Consumers	Local
	DNEL	Short term Inhalation	174 mg/m ³	Consumers	Systemic
	DNEL	Long term Inhalation	14,8 mg/m ³	Consumers	Systemic
zinc powder, stabilised	DNEL	Long term Dermal	108 mg/m ³	Consumers	Systemic
	DNEL	Long term Inhalation	5 mg/m ³	Workers	-
	DNEL	Inhalation	2,5 mg/m ³	Workers	Local
	DNEL	Short term Oral	50 mg/day	Workers	Local
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	DNEL	Short term Dermal	5000 mg/day	Workers	Local
	DNEL	Long term Dermal	208 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	871 mg/m ³	Workers	Systemic
	DNEL	Long term Oral, Dermal	125 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	185 mg/m ³	Consumers	Systemic
ethylbenzene	DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	15 mg/m ³	Consumers	Systemic
	DNEL	Long term Oral	1,6 mg/kg bw/day	Consumers	Systemic
zinc oxide	DNEL	Long term Inhalation	5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	2,5 mg/m ³	Consumers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	Consumers	Systemic

SECTION 8: Exposure controls/personal protection**PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
xylene (mixture of isomeres)	Fresh water	0,327 mg/l	-
	Marine water	0,327 mg/l	-
	Fresh water sediment	12,46 mg/kg	-
	Marine water sediment	12,46 mg/kg	-
	Soil	2,31 mg/kg	-
	Sewage Treatment Plant	6,58 mg/l	-
	zinc powder, stabilised	Fresh water	20,6 µg/l
Marine		6,1 µg/l	-
Sewage Treatment Plant		52 µg/l	-
Fresh water sediment		118 mg/kg dwt	-
Marine water sediment		56,5 mg/kg dwt	-
ethylbenzene	Soil	35,6 mg/kg dwt	-
	Fresh water	0,1 mg/l	-
	Marine water	0,01 mg/l	-
	Fresh water sediment	13,7 mg/kg	-
	Marine water sediment	1,37 mg/kg	-
	Soil	2,68 mg/kg	-
	Sewage Treatment Plant	9,6 mg/l	-
zinc oxide	Fresh water	25,6 µg/l	-
	Marine	7,6 µg/l	-
	Sewage Treatment Plant	64,7 µg/l	-
	Fresh water sediment	146 mg/kg dwt	-
	Marine water sediment	70,3 mg/kg dwt	-
	Soil	44,3 mg/kg dwt	-

8.2 Exposure controls

Appropriate engineering controls : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

Individual protection measures

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

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Recommended: safety glasses with side-shields (EN 166)

Skin protection**Hand protection**

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

SECTION 8: Exposure controls/personal protection

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

- Gloves** : For prolonged or repeated handling, use the following type of gloves:
- Recommended: > 8 hours (breakthrough time): nitrile rubber (0.5mm)
- The recommendation for the type or types of glove to use when handling this product is based on information from the following source:
EN 374
- The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods. Recommended: Wear overalls or long sleeved shirt. (EN 1149-1)
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour (Type A) and particulate filter (EN 141).
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid. [Aerosol.]
- Colour** : Silvery.
- Odour** : Hydrocarbon.
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: -40°C
- Evaporation rate** : >1 (butyl acetate = 1)
- Flammability (solid, gas)** : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Slightly flammable in the presence of the following materials or conditions: shocks and mechanical impacts.
In use, may form flammable/explosive vapour-air mixture. Vapour may travel a considerable distance to source of ignition and flash back.
- Upper/lower flammability or explosive limits** : Lower: 3%
Upper: 18%
- Vapour pressure** : 420 kPa [room temperature]
- Vapour density** : >1 [Air = 1]

SECTION 9: Physical and chemical properties

Relative density	: 0,88
Solubility(ies)	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: 350°C
Decomposition temperature	: Not available.
Viscosity	: Not available.
Explosive properties	: Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Container explosion may occur under fire conditions or when heated. Bursting aerosol containers may be propelled from a fire at high speed.
Oxidising properties	: Not available.

9.2 Other information

Type of aerosol	: Spray
Heat of combustion	: 22,21 kJ/g

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products.
10.5 Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. If involved in a fire, toxic gases including CO, CO2 and smoke can be generated.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
dimethyl ether	LC50 Inhalation Gas.	Mouse	386 ppm	0,5 hours
	LC50 Inhalation Gas.	Rat	308000 mg/m ³	1 hours
	LC50 Inhalation Gas.	Rat	164000 ppm	4 hours
xylene (mixture of isomeres)	LC50 Inhalation Vapour	Rat	309 g/m ³	4 hours
	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Gas.	Rat	6670 ppm	4 hours
hydrocarbons, aromatic, C9	LD50 Oral	Rat	4300 mg/kg	-
	TDLo Dermal	Rabbit	4300 mg/kg	-
	LD50 Oral	Mouse	8400 mg/kg	-

SECTION 11: Toxicological information

ethylbenzene	LD50 Oral	Rat	8400 mg/kg	-
	LC50 Inhalation Vapour	Rat	50000 mg/m ³	2 hours
	LCLo Inhalation Vapour	Rat	4000 ppm	4 hours
zinc oxide	LD50 Oral	Rat	3500 mg/kg	-
	LC50 Inhalation Dusts and mists	Mouse	2500 mg/m ³	4 hours
	LC50 Inhalation Dusts and mists	Rat	>5700 mg/m ³	4 hours
Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates	LD50 Oral	Rat	>15 g/kg	-
	LD50 Oral	Rat	608 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene (mixture of isomeres)	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
zinc powder, stabilised	Skin - Moderate irritant	Rabbit	-	100 Percent	-
	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent	-
hydrocarbons, aromatic, C9	Eyes - Mild irritant	Rabbit	-	24 hours 100 microliters	-
ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates	Eyes - Visible necrosis	Rabbit	-	4 hours	24 hours

Conclusion/Summary

Skin : Causes skin irritation.

Eyes : Causes serious eye irritation.

Respiratory : May cause damage to organs through prolonged or repeated exposure if inhaled.

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
hydrocarbons, C9-C11, n-/iso-/ cyclo-alkanes, < 2% aromatics	skin	Rabbit	Not sensitizing

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Respiratory : Based on available data, the classification criteria are not met.

SECTION 11: Toxicological information**Mutagenicity**

Product/ingredient name	Test	Experiment	Result
hydrocarbons, aromatic, C9	OECD 471	Subject: Bacteria	Negative

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
hydrocarbons, aromatic, C9	-	-	Negative	Mammal - species unspecified	Route of exposure unreported	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
xylene (mixture of isomeres)	Category 3	Not applicable.	Respiratory tract irritation
hydrocarbons, aromatic, C9	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
xylene (mixture of isomeres)	Category 2	Not determined	Not determined
ethylbenzene	Category 2	Not determined	hearing organs

Aspiration hazard

Product/ingredient name	Result
xylene (mixture of isomeres)	ASPIRATION HAZARD - Category 1
hydrocarbons, aromatic, C9	ASPIRATION HAZARD - Category 1
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

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

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

General : May cause damage to organs through prolonged or repeated exposure.

SECTION 11: Toxicological information

Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information**12.1 Toxicity**

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
zincpowder, stabilised	Acute EC50 106 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute EC50 0,572 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 10000 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute LC50 107 µg/l Fresh water	Daphnia spec. - Daphnia pulex	48 hours
	Acute LC50 182 µg/l Fresh water	Fish - Oncorhynchus tshawytscha	96 hours
	Chronic EC10 27,3 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Chronic EC10 59,2 µg/l Fresh water Chronic NOEC 9 mg/l Fresh water	Daphnia spec. - Daphnia magna Aquatic plants - Ceratophyllum demersum	21 days 3 days
hydrocarbons, C9-C11, n-/iso-/ cyclo-alkanes, < 2% aromatics	Chronic NOEC 178 µg/l Marine water	Crustaceans - Palaemon elegans	21 days
	Acute NOEC 100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
ethylbenzene	Chronic NOEC 0,23 mg/l	Daphnia spec.	-
	Chronic NOEC 0,131 mg/l	Fish	-
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 9,46 to 6530 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 4,4 to 2970 µg/l Fresh water	Daphnia spec. - Daphnia magna - Neonate	48 hours
	Acute LC50 13,7 to 8780 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute LC50 5200 µg/l Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 11 to 9090 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Acute LC50 4200 µg/l Fresh water Chronic NOEC 1000 µg/l Fresh water	Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata	96 hours 96 hours	

Conclusion/Summary : Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

SECTION 12: Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
xylene (mixture of isomeres) hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	-	90 % - Readily - 5 days	-	-
	OECD 301B	>80 % - Readily - 28 days	-	-
	OECD 301F	>80 % - Readily - 28 days	-	-

Conclusion/Summary : Based on available data, the classification criteria are not met. This product has not been tested for biodegradation.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene (mixture of isomeres) hydrocarbons, aromatic, C9 hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	-	-	Readily
	-	100%; < 28 day(s)	Readily
ethylbenzene	-	-	Readily
Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
dimethyl ether	0,07	-	low
xylene (mixture of isomeres) hydrocarbons, aromatic, C9 hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	3,12	8.1 to 25.9	low
	3.7 to 4.5	-	high
ethylbenzene	5 to 6.5	-	high
ethylbenzene	3,6	-	low
zinc oxide	-	60960	high

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Volatile.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

13.1 Waste treatment methods**Product**

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

SECTION 13: Disposal considerations

Hazardous waste : Yes.

Disposal considerations : Do not allow to enter drains or watercourses.
Dispose of according to all federal, state and local applicable regulations.
If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.
For further information, contact your local waste authority.

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

Waste code	Waste designation
20 01 27*	paint, inks, adhesives and resins containing hazardous substances


Packaging

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

Disposal considerations : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.
Empty containers must be scrapped or reconditioned.
Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN 1950	UN 1950	UN 1950	UN 1950
14.2 UN proper shipping name	AEROSOLS, Flammable(Limited quantity) [zinc powder, stabilized]	AEROSOLS, Flammable (Limited quantity) [zinc powder, stabilized]	AEROSOLS, Flammable, Marine pollutant (Limited quantity) [zinc powder, stabilized]	AEROSOLS, Flammable [zinc powder, stabilized]
14.3 Transport hazard class(es)	2	2	2.1	2.1 
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.
Additional information	Limited quantity: LQ2 Remarks: (≤ 1L:) Limited Quantity - ADR/IMDG 3.4 ADR Tunnel code: (D)		Emergency schedules (EmS): F-D + S-U Remarks: Limited Quantity - ADR/IMDG 3.4	Passenger and Cargo Aircraft Quantity limitation: 75 kg Packaging instructions: 203 Cargo Aircraft Only Quantity limitation: 150 kg Packaging instructions: 203 Limited Quantities - Passenger Aircraft

2120 Galva-Plus +

SECTION 14: Transport information

				Quantity limitation: 30 kg Packaging instructions: Y 203
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14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

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

Other EU regulations

VOC for Ready-for-Use Mixture : Not applicable.

Europe inventory : All components are listed or exempted.

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Water : Listed

Industrial emissions (integrated pollution prevention and control) - Water : Listed

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Aerosol dispensers :

3



Extremely flammable

Seveso Directive

SECTION 15: Regulatory information

This product is controlled under the Seveso Directive.

Danger criteria

Category

P3a
E2

National regulations

Industrial use : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

References : EH40/2005 Workplace exposure limits
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2016/918

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

CN code : 3208 10 90

International lists

National inventory

Australia : Not determined.
Canada : Not determined.
China : At least one component is not listed.
Japan : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): Not determined.
Malaysia : Not determined.
New Zealand : Not determined.
Philippines : Not determined.
Republic of Korea : Not determined.
Taiwan : Not determined.
Turkey : Not determined.
United States : Not determined.

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Aerosol 1, H222, H229	Expert judgment
Skin Irrit. 2, H315	Expert judgment
Eye Irrit. 2, H319	Expert judgment
STOT RE 2, H373	Expert judgment
Aquatic Chronic 2, H411	Expert judgment

Full text of H-phrases referred to in sections 2 and 3

Full text of abbreviated H statements

H220	Extremely flammable gas.
H222, H229	Extremely flammable aerosol. Pressurised container: May burst if heated.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Acute Tox. 4, H312	ACUTE TOXICITY (dermal) - Category 4
Acute Tox. 4, H332	ACUTE TOXICITY (inhalation) - Category 4
Aerosol 1, H222, H229	AEROSOLS - Category 1
Aquatic Acute 1, H400	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1, H410	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2, H411	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Dam. 1, H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Gas 1, H220	FLAMMABLE GASES - Category 1
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2

SECTION 16: Other information

Flam. Liq. 3, H226	FLAMMABLE LIQUIDS - Category 3
Flam. Sol. 1, H228	FLAMMABLE SOLIDS - Category 1
Skin Corr. 1B, H314	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
STOT SE 3, H336	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
Water-react. 2, H261	SUBSTANCES AND MIXTURES WHICH IN CONTACT WITH WATER EMIT FLAMMABLE GASES - Category 2

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Notice to reader

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.