

SAFETY DATA SHEET

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

1.1 Product identifier

Product name : MIL-DTL-53022F TYPE IV CLASS L ENHANCED CORROSION 2K EPOXY PRIMER Q2056 - Light Gray

Product code : E90A228

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

Material uses : Paint or paint related material.
: Industrial use only.

1.3 Details of the supplier of the safety data sheet

Mfg. in U.S.A and exported by:
The Sherwin-Williams Company
101 Prospect Avenue N.W.
Cleveland, OH 44115

EU Only Representative: Valspar B.V.
Zuiveringweg 89
8243 PE Lelystad
P.O. Box 2139
The Netherlands
Phone: +31 (0)320 29 22 00

e-mail address of person responsible for this SDS : sds@sherwin.com

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : +431 406 43 43

Supplier

Telephone number : +1 703-741-5970

Hours of operation : Emergency contact available 24 hours a day

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]

Flam. Liq. 2, H225
Skin Sens. 1, H317
STOT SE 3, H336
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 : Highly flammable liquid and vapor.
May cause an allergic skin reaction.
May cause drowsiness or dizziness.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Avoid breathing vapor.

Response : Collect spillage. IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Storage : Not applicable.

Disposal : Not applicable.

Hazardous ingredients : Methyl n-Amyl Ketone
Acetone
Epoxy Polymer
Maleic Anhydride

Supplemental label elements : Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. FOR INDUSTRIAL USE ONLY

Special packaging requirements

Not applicable.

2.3 Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixture :

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Methyl n-Amyl Ketone	REACH #: 01-2119902391-49 EC: 203-767-1 CAS: 110-43-0 Index: 606-024-00-3	≥10 - ≤25	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H332 STOT SE 3, H336	ATE [Oral] = 1600 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
Acetone	REACH #: 01-2119471330-49 EC: 200-662-2 CAS: 67-64-1 Index: 606-001-00-8	<10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	-	[1] [2]
Zinc Phosphate	EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	≤10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
Epoxy Polymer	EC: 500-180-5	≤10	Skin Sens. 1, H317	-	[1]

SECTION 3: Composition/information on ingredients

Zinc Oxide	CAS: 67989-52-0 REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤3	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
Silane Hydrolysis Products with Silica	EC: 272-697-1 CAS: 68909-20-6 Index: 014-052-00-7	≤1	STOT RE 2, H373 (lungs) (inhalation) EUH066	-	[1]
n-Butyl Acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≤0.84	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	-	[1] [2]
Methyl Isobutyl Ketone	REACH #: 01-2119473980-30 EC: 203-550-1 CAS: 108-10-1 Index: 606-004-00-4	≤0.57	Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336 EUH066	ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
Maleic Anhydride	REACH #: 01-2119472428-31 EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9	≤0.1	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372 (respiratory system) (inhalation) EUH071 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 400 mg/kg Skin Sens. 1, H317: C ≥ 0.001%	[1] [2]

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

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 recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion

: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

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SECTION 4: First aid measures

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor 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.

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 or mist.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous combustion products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
- For non-emergency personnel

: Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.

Keep unnecessary and unprotected personnel from entering.
- For emergency responders

: If specialized 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

: Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.
- 6.3 Methods and materials for containment and cleaning up

: 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 (see Section 13). Preferably clean with a detergent. Avoid using solvents.
- 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. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

- 7.1 Precautions for safe handling
- : Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor 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
- Vapors are heavier than air and may spread along floors. Vapors 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 vapors in all cases. In such circumstances, they should wear a compressed-air-fed respirator during the spraying process and until the particulate and solvent vapor concentrations have fallen below the exposure limits.

SECTION 7: Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations.
Notes on joint storage
Keep away from: oxidizing agents, strong alkalis, strong acids.
Additional information on storage conditions
Observe label precautions. 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 unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Contaminated absorbent material may pose the same hazard as the spilled product.

7.3 Specific end use(s)

Recommendations

: Not available.

Industrial sector specific solutions

: Not available.

Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits	
Product/ingredient name	Exposure limit values
Methyl n-Amyl Ketone	Regulation on Limit Values - MAC (Austria, 4/2021). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 237 mg/m³ 8 hours. PEAK: 100 ppm, 4 times per shift, 15 minutes. PEAK: 473 mg/m³, 4 times per shift, 15 minutes. Regulation on Limit Values - MAC (Austria, 4/2021). TWA: 500 ppm 8 hours. TWA: 1200 mg/m³ 8 hours. PEAK: 2000 ppm, 4 times per shift, 15 minutes. PEAK: 4800 mg/m³, 4 times per shift, 15 minutes. Regulation on Limit Values - MAC (Austria, 4/2021). [Butyl acetate (all isomers except tert-butyl acetate)] CEIL: 480 mg/m³ CEIL: 100 ppm TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours. Regulation on Limit Values - MAC (Austria, 4/2021). Absorbed through skin. TWA: 20 ppm 8 hours. TWA: 83 mg/m³ 8 hours. PEAK: 50 ppm, 4 times per shift, 15 minutes. PEAK: 208 mg/m³, 4 times per shift, 15 minutes. Regulation on Limit Values - MAC (Austria, 4/2021). Skin sensitizer. Inhalation sensitizer. TWA: 0.1 ppm 8 hours. TWA: 0.4 mg/m³ 8 hours. CEIL: 0.2 ppm, 8 times per shift, 5 minutes. CEIL: 0.8 mg/m³, 8 times per shift, 5 minutes.
Acetone	
n-Butyl Acetate	
Methyl Isobutyl Ketone	
Maleic Anhydride	

SECTION 8: Exposure controls/personal protection

No exposure indices known.

- Recommended monitoring procedures

: 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.
: Regular monitoring of all work areas should be carried out at all times, including areas that may not be equally ventilated.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Methyl n-Amyl Ketone	DNEL	Short term Inhalation	1516 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	54.27 mg/kg	Workers	Systemic
	DNEL	Long term Inhalation	394.25 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	23.32 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	84.31 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Oral	23.32 mg/kg bw/day	General population [Consumers]	Systemic
Acetone	DNEL	Long term Dermal	186 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1210 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	2420 mg/m ³	Workers	Local
	DNEL	Long term Dermal	62 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	200 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Oral	62 mg/kg bw/day	General population [Consumers]	Systemic
Zinc Oxide	DNEL	Long term Inhalation	5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	0.5 mg/m ³	Workers	Local
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.5 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.83 mg/kg bw/day	General population	Systemic
n-Butyl Acetate	DNEL	Short term Inhalation	600 mg/m ³	Workers	Local

SECTION 8: Exposure controls/personal protection

Methyl Isobutyl Ketone	DNEL	Long term Inhalation	300 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	300 mg/m ³	General population	Local
	DNEL	Long term Inhalation	35.7 mg/m ³	General population	Local
	DNEL	Long term Dermal	11 mg/kg	Workers	Systemic
	DNEL	Short term Dermal	11 mg/kg	Workers	Systemic
	DNEL	Long term Dermal	6 mg/kg	General population	Systemic
	DNEL	Short term Dermal	6 mg/kg	General population	Systemic
	DNEL	Long term Oral	2 mg/kg	General population	Systemic
	DNEL	Short term Oral	2 mg/kg	General population	Systemic
	DNEL	Short term Inhalation	208 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	208 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	83 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	83 mg/m ³	Workers	Local
	DNEL	Long term Dermal	11.8 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	155.2 mg/m ³	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	155.2 mg/m ³	General population [Consumers]	Local
	DNEL	Long term Inhalation	14.7 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	14.7 mg/m ³	General population [Consumers]	Local
	DNEL	Long term Dermal	4.2 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	4.2 mg/kg bw/day	General population [Consumers]	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
Methyl n-Amyl Ketone	Fresh water	0.0982 mg/l	-
	Marine water	0.00982 mg/l	-
	Fresh water sediment	1.89 mg/kg	-
	Marine water sediment	0.189 mg/kg	-
	Soil	0.321 mg/kg	-
	Sewage Treatment Plant	12.5 mg/l	-
Acetone	Fresh water	10.6 mg/l	-
	Marine water	1.06 mg/l	-
	Sewage Treatment Plant	100 mg/l	-
	Fresh water sediment	30.4 mg/kg	-
	Sediment	3.04 mg/kg	-
	Soil	29.5 mg/kg	-

SECTION 8: Exposure controls/personal protection

Zinc Oxide	Fresh water	0.0206 mg/l	-
	Marine water	0.0061 mg/l	-
	Sewage Treatment Plant	0.1 mg/l	-
	Fresh water sediment	117.8 mg/kg dwt	-
	Marine water sediment	56.5 mg/kg dwt	-
n-Butyl Acetate	Soil	35.6 mg/kg dwt	-
	Fresh water	0.18 mg/l	-
	Marine water	0.018 mg/l	-
	Fresh water sediment	0.981 mg/kg	-
	Marine water sediment	0.0981 mg/kg	-
Methyl Isobutyl Ketone	Soil	0.0903 mg/kg	-
	Sewage Treatment Plant	35.6 mg/l	-
	Fresh water	0.6 mg/l	-
	Marine water	0.06 mg/l	-
	Sewage Treatment Plant	27.5 mg/l	-
	Fresh water sediment	8.27 mg/kg dwt	-
	Marine water sediment	0.83 mg/kg dwt	-
	Soil	1.3 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 vapors below the OEL, suitable respiratory protection must be worn.
- : Users are advised to consider national Occupational Exposure Limits or other equivalent values.

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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Use safety eyewear designed to protect against splash of liquids.

Skin protection

Hand protection

Gloves

- : Wear suitable gloves tested to EN374.
- : Gloves for short term exposure/splash protection (less than 10 min.): Nitrile>0.12 mm
Gloves for splash protection need to be changed immediately when in contact with chemicals.
Gloves for repeated or prolonged exposure (breakthrough time > 240 min.)
When the hazardous ingredients in Section 3 contain any of the following: Aromatic solvents (Xylene, Toluene) or Aliphatic solvents or Mineral Oil use: Polyvinyl alcohol (PVA) gloves 0.2-0.3 mm
Otherwise use: Butyl gloves >0.3 mm
For long term exposure or spills (breakthrough time >480 min.): Use PE laminated gloves as under gloves
Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing.
The recommendation for the type or types of glove to use when handling this product is based on information from the following source: Solvent resin manufacturers and European Solvents Industry Group (ESIG)

SECTION 8: Exposure controls/personal 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.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.
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

: Personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.
: 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.
- 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

: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Recommended: A2P2 (EN14387). Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Environmental exposure controls

: Do not allow to enter drains or watercourses.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. 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.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state

: Liquid.
- Color

: Gray.
- Odor

: Solvent.
- Odor threshold

: Not Available (Not Tested).
- pH

: Not relevant/applicable due to nature of the product.
insoluble in water.
- Melting point/freezing point

: Not relevant/applicable due to nature of the product.
- Initial boiling point and boiling range

: 55°C
- Flash point

: Closed cup: -13°C [Pensky-Martens Closed Cup]

SECTION 9: Physical and chemical properties

Evaporation rate

: 5.6 (butyl acetate = 1)

Flammability

: Flammable liquid.

Lower and upper explosion limit

: LEL: 1.1% (Methyl n-Amyl Ketone)
UEL: 12.8% (Acetone)

Vapor pressure

: 24 kPa (180 mm Hg)

Relative vapor density

: 2 [Air = 1]

Relative density

: 1.56

Solubility(ies)

:

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/
water
: Not relevant/applicable due to nature of the product.

Auto-ignition temperature
:

Ingredient name	°C	°F	Method
Methyl n-Amyl Ketone	392	737.6	
Acetone	465	869	

Decomposition temperature

: Not relevant/applicable due to nature of the product.

Viscosity

: Kinematic (40°C): >20.5 mm²/s

Explosive properties

: Under normal conditions of storage and use, hazardous reactions will not occur.

Oxidizing properties

: Under normal conditions of storage and use, hazardous reactions will not occur.

Particle characteristics

Median particle size

: Not relevant/applicable due to nature of the product.

9.2 Other information

Heat of combustion
: 7.92 kJ/g

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: oxidizing agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products
: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor 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.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Amyl Ketone	LD50 Oral	Rat	1600 mg/kg	-
Acetone	LD50 Oral	Rat	5800 mg/kg	-
n-Butyl Acetate	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
Methyl Isobutyl Ketone	LD50 Oral	Rat	2080 mg/kg	-
Maleic Anhydride	LD50 Dermal	Rabbit	2620 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-

Acute toxicity estimates

Route	ATE value
Oral	12243.64 mg/kg
Inhalation (vapors)	84.18 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Amyl Ketone	Skin - Mild irritant	Rabbit	-	24 hours 14 mg	-
Acetone	Eyes - Mild irritant	Human	-	186300 ppm	-
	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
		Rabbit	-	20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
Zinc Oxide	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
		Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
		Rabbit	-	24 hours 500 mg	-
n-Butyl Acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Methyl Isobutyl Ketone	Eyes - Moderate irritant	Rabbit	-	24 hours 100 uL	-
	Eyes - Severe irritant	Rabbit	-	40 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500	-

SECTION 11: Toxicological information

Maleic Anhydride	Eyes - Severe irritant	Rabbit	-	mg 1 %	-
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Conclusion/Summary : Not available.

Sensitization

No data available

Conclusion/Summary : Not available.

Mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Methyl n-Amyl Ketone	Category 3	-	Narcotic effects
Acetone	Category 3	-	Narcotic effects
n-Butyl Acetate	Category 3	-	Narcotic effects
Methyl Isobutyl Ketone	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Silane Hydrolysis Products with Silica	Category 2	inhalation	lungs
Maleic Anhydride	Category 1	inhalation	respiratory system

Aspiration hazard

No data available

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 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.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

SECTION 12: Ecological information

Product/ingredient name	Result	Species	Exposure
Methyl n-Amyl Ketone Acetone	Acute LC50 131000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute EC50 7200000 µg/l Fresh water	Algae - <i>Selenastrum sp.</i>	96 hours
	Acute EC50 23.5 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 4.42589 ml/L Marine water	Crustaceans - <i>Acartia tonsa</i> - Copepodid	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - <i>Poecilia reticulata</i>	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - <i>Daphniidae</i>	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
	Chronic NOEC 5 µg/l Marine water	Fish - <i>Gasterosteus aculeatus</i> - Larvae	42 days
Zinc Phosphate Zinc Oxide	Acute LC50 90 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Acute IC50 1.85 mg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
n-Butyl Acetate	Acute LC50 98 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 1.1 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Acute LC50 32 mg/l Marine water	Crustaceans - <i>Artemia salina</i>	48 hours
Methyl Isobutyl Ketone	Acute LC50 18000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute LC50 505000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Chronic NOEC 78 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Chronic NOEC 168 mg/l Fresh water	Fish - <i>Pimephales promelas</i> - Embryo	33 days
Maleic Anhydride	Acute LC50 230 ppm Fresh water	Fish - <i>Gambusia affinis</i> - Adult	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
No data available				

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Amyl Ketone	-	-	Readily
Acetone	-	-	Readily
n-Butyl Acetate	-	-	Readily
Methyl Isobutyl Ketone	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Zinc Phosphate	-	60960	High
Zinc Oxide	-	28960	High

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

SECTION 12: Ecological information

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods






Product

- Methods of disposal: The generation of waste should be avoided or minimized 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.
- Hazardous waste: Yes.
- European waste catalogue (EWC): waste paint and varnish containing organic solvents or other hazardous substances 08 01 11*
- 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.

Packaging

- Methods of disposal: The generation of waste should be avoided or minimized 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.
- European waste catalogue (EWC): packaging containing residues of or contaminated by hazardous substances 15 01 10*
- Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT. Marine pollutant (Zinc Phosphate, Zinc Oxide)	PAINT
14.3 Transport Hazard Class(es)/ Label(s)	3 <div></div>	3 <div></div>	3 <div></div>
14.4 Packing group	II	II	II

SECTION 14: Transport information

14.5 Environmental hazards	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Additional information	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. Special provisions 640 (C) Tunnel code D/E	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. Emergency schedules F-E, S-E	The environmentally hazardous substance mark may appear if required by other transportation regulations.

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.

14.7 Maritime transport in bulk according to IMO instruments : Not applicable.

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

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 authorization

Annex XIV

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

Product/ingredient name	%	Designation [Usage]
MIL-DTL-53022F TYPE IV CLASS L ENHANCED CORROSION 2K EPOXY PRIMER Q2056	≥90	3
formaldehyde	<0.1	72
toluene	≤0.1	48

Labeling : Not applicable.

Other EU regulations

VOC content (2010/75/EU) : 24.5 w/w
381 g/l

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

Explosive precursors : Not applicable.

Seveso Directive

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.


National regulations

SECTION 15: Regulatory information

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
N/A = Not available

Key literature references and sources for data

: Regulation (EC) No. 1272/2008 [CLP]
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878
Directive 2012/18/EU, and relative amendments & additions
Directive 2008/98/EC, and relative amendments & additions
Directive 2009/161/EU, and relative amendments & additions
CEPE Guidelines

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

Classification	Justification
Flam. Liq. 2, H225 Skin Sens. 1, H317 STOT SE 3, H336 Aquatic Chronic 2, H411	On basis of test data Calculation method Calculation method Calculation method

Full text of abbreviated H statements

: H225 Highly flammable liquid and vapor.
H226 Flammable liquid and vapor.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H372 Causes damage to organs through prolonged or repeated exposure.
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.
EUH066 Repeated exposure may cause skin dryness or cracking.
EUH071 Corrosive to the respiratory tract.

SECTION 16: Other information

Full text of classifications [CLP/GHS]	Acute Tox. 4	ACUTE TOXICITY - Category 4
	Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
	Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
	Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
	Carc. 2	CARCINOGENICITY - Category 2
	Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
	Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
	Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
	Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
	Resp. Sens. 1	RESPIRATORY SENSITIZATION - Category 1
	Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
	Skin Sens. 1	SKIN SENSITIZATION - Category 1
	Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
	STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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: If there is no previous validation date please contact your supplier for more information.

Version : 15.02

Notice to reader

In accordance with Regulation (EC) 1907/2006, REACH Regulation, Articles 31, 37, any required hazard-related information on the use of substances received as downstream user will be sent forward. Consequently, the safety data sheets for some products will contain a SUMI - Safe Use of Mixture Information - attached to the safety data sheet.

SUMI(s) will be added to the SDS for products if both the following conditions are met:

- **The product is classified as hazardous for health**
- **The product contains one or more REACH-registered substances for which extended safety data sheets (exposure scenarios) have been provided**

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

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