



SAFETY DATA SHEET

1085 Cold Galvanizing (brush)

1. Identification of the substance/preparation and of the company/undertaking

Product name and/or code : 1085 Cold Galvanizing (brush)

Manufacturer : Rust-Oleum Netherlands BV, PO. Box 138, NL-4700 AC Roosendaal, The Netherlands
NV Martin Mathys, Kolenberg 23, B-3545 Zelem, Belgium

Emergency telephone number : Rust-Oleum: (+31)165-593636; Fax (+31)165-593600
Martin Mathys: (+32)13-460200; Fax (+32)13-460201

Product use : Paint.

2. Composition/information on ingredients

Substance/preparation : Preparation

Chemical name*	CAS No.	%	EC number	Classification
Europe				
Zinc powder (stabilized)	7440-66-6	50 - 100	231-175-3	F; R15 R10 N; R50/53
2-Methoxy-1-methylethyl acetate	108-65-6	10 - 25	203-603-9	R10 Xi; R36
Diaceton alcohol	123-42-2	2.5 - 5	204-626-7	Xi; R36
Zinc oxide	1314-13-2	2.5 - 5	215-222-5	N; R50/53
Butanone	78-93-3	2.5 - 5	201-159-0	F; R11 Xi; R36 R66, 67
Xylene (mixture of isomeres)	1330-20-7	1 - 2.5	215-535-7	R10 Xn; R20/21 Xi; R38
Cyclohexanone	108-94-1	1 - 2.5	203-631-1	R10 Xn; R20
See section 16 for the full text of the R Phrases declared above				

* Occupational Exposure Limit(s), if available, are listed in section 8

3. Hazards identification

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : R11- Highly flammable.
R36- Irritating to eyes.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. First aid measures

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.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if irregular breathing, or respiratory arrest occurs provide artificial respiration or oxygen by trained personnel. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice.

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.

Eye Contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

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

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

5. Fire-fighting measures

- Extinguishing Media** : Recommended: alcohol resistant foam, CO₂, powders, water spray.
Not to be used : waterjet.
- Recommendations** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to sewers or waterways.
- Special fire-fighting procedures** : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
- Hazardous thermal decomposition products** : These products are carbon oxides (CO, CO₂). Some metallic oxides.

6. Accidental release measures

- Personal precautions** : Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.
- Spill** : Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth, and place in container for disposal according to local regulations (see section 13). Do not allow to enter drains or watercourses. Clean preferably with a detergent; avoid use of solvents. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

- Handling** : Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. 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 be used only in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

Keep container tightly closed. 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 and spray mist arising from the application of this preparation. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.

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.

- Storage** : Store in accordance with local regulations. Observe label precautions. Do not store above 30°C (86°F). Store in a cool, well-ventilated area away from incompatible materials and ignition sources.

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

No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

8. Exposure controls/personal protection

- Engineering measures** : 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.

- Hygiene measures** : Keep away from food, drink and animal feeding stuffs. Never eat, drink or smoke in work areas. Practice good personal hygiene when using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. It is generally recognized that contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury.

1085 Cold Galvanizing (brush)

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
Europe	
2-Methoxy-1-methylethyl acetate	EU OEL (Europe, 6/2000). Skin Notes: Indicative STEL: 550 mg/m ³ 15 minute(s). STEL: 100 ppm 15 minute(s). TWA: 275 mg/m ³ 8 hour(s). TWA: 50 ppm 8 hour(s).
Diaceton alcohol	ACGIH TLV (United States, 2/2003). TWA: 238 mg/m ³ 8 hour(s). Form: All forms TWA: 50 ppm 8 hour(s). Form: All forms
Butanone	EU OEL (Europe, 6/2000). Notes: Indicative STEL: 900 mg/m ³ 15 minute(s). STEL: 300 ppm 15 minute(s). TWA: 600 mg/m ³ 8 hour(s). TWA: 200 ppm 8 hour(s).
Xylene (mixture of isomeres)	EU OEL (Europe, 6/2000). Skin Notes: Indicative STEL: 442 mg/m ³ 15 minute(s). STEL: 100 ppm 15 minute(s). TWA: 221 mg/m ³ 8 hour(s). TWA: 50 ppm 8 hour(s).
Cyclohexanone	EU OEL (Europe, 6/2000). Skin Notes: Indicative STEL: 81,6 mg/m ³ 15 minute(s). STEL: 20 ppm 15 minute(s). TWA: 40,8 mg/m ³ 8 hour(s). TWA: 10 ppm 8 hour(s).

Recommended monitoring procedures : Air monitoring can be used to determine ventilation requirements and compliance with applicable employee exposure limits.

Occupational exposure controls : Use only with adequate ventilation. Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition and flash back. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Personal protective equipment

Respiratory system : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Vapor respirator or a self-contained breathing apparatus.

Hands : For prolonged or repeated handling, use gloves: polyvinyl alcohol or neoprene.

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

Skin and body : Overalls buttoned to the neck and wrist.

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

9. Physical and chemical properties

Physical state	: Liquid.
Color	: Dark grey.
Odor	: Solvent-like.
Specific gravity	: 2.22 (Water = 1)
pH	: Acidic.
Melting point	: <-20°C (-4°F)
Boiling point	: >140°C (284°F)
Auto-ignition temperature	: >250°C (482°F)
Flash point	: Closed cup: 18°C (64.4°F). (Setaflash.)
Lower explosion limit	: Lower: 0.6% Upper: 12%
	Vapor may travel considerable distance to source of ignition and flash back.
Vapor pressure	: 10 kPa (75 mm Hg) (at 20°C)
Vapor density	: >1 (Air = 1)
Evaporation rate	: 5.7 compared to Butyl acetate.
Solubility	: Insoluble in cold water, hot water.
Viscosity	: Dynamic: 2000 cP
Volatility (%)	: 63.6% (v/v). 26.8% (w/w).
VOC (W/W):	: 595 (g/l).

10. Stability and reactivity

Stable under recommended storage and handling conditions (see section 7).

Hazardous decomposition products: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

11. Toxicological information

There is no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Chapters 2 and 15 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. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation 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.

Potential acute health effects

- Ingestion** : Slightly hazardous in case of ingestion. Ingestion may cause gastrointestinal irritation and diarrhea.
- Inhalation** : Exposure to high air concentrations may cause mild irritation of eyes, nose, and throat.
- Skin contact** : Slightly irritating to the skin.
- Eye contact** : This product may irritate eyes upon contact. May cause corneal opacity. Inflammation of the eye is characterized by redness, watering, and itching.
- Other toxic effects on humans** : Alcohol consumption before or after exposure may increase adverse effects. Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

Acute Data (LD₅₀, LC₅₀) - Toxicity to Test Animals

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Zinc powder (stabilized)	LD50	>2000 mg/kg	Oral	Rat
	LDLo	388 mg/kg	Oral	Birds.
	LC50	>5410 mg/m ³ (4 hour(s))	Inhalation	Rat
2-Methoxy-1-methylethyl acetate	LD50	8532 mg/kg	Oral	Rat
	LD50	5000 mg/kg	Dermal	Rabbit
	LC50	4345 (6 hour(s))	Inhalation	Rat
Diaceton alcohol	LD50	4000 mg/kg	Oral	Rat
	LD50	3950 mg/kg	Oral	Mouse
	LD50	13500 mg/kg	Dermal	Rabbit
	LDLo	4653 mg/kg	Oral	Rabbit
Zinc oxide	LD50	7950 mg/kg	Oral	Mouse
	LD50	>14700 mg/kg	Oral	Rat
	LDLo	500 mg/kg	Oral	Human/30 min
Butanone	LC50	2500 mg/m ³ (4 hour(s))	Inhalation	Mouse
	LD50	2750 mg/kg	Oral	Rat
	LD50	4050 mg/kg	Oral	Mouse
	LD50	6480 mg/kg	Dermal	Rabbit
	LC50	40000 mg/m ³ (2 hour(s))	Inhalation	Mouse
Xylene (mixture of isomeres)	LC50	23500 mg/m ³ (8 hour(s))	Inhalation	Mouse
	LD50	4300 mg/kg	Oral	Rat
	LD50	2119 mg/kg	Oral	Mouse
	LD50	4300 mg/kg	Oral	Mammal
	LD50	>1700 mg/kg	Dermal	Rabbit
	LDLo	50 mg/kg	Oral	Human/30 min
	LC50	5000 ppm (4 hour(s))	Inhalation	Rat
Cyclohexanone	LC50	22.1 mg/l (4 hour(s))	Inhalation	Rat
	LD50	1400 mg/kg	Oral	Mouse
	LD50	1535 mg/kg	Oral	Rat
	LD50	948 mg/kg	Dermal	Rabbit
	LDLo	1600 mg/kg	Oral	Rabbit
	LC50	8000 ppm (4 hour(s))	Inhalation	Rat
	LCLo	19200 mg/m ³ (1.5 hour(s))	Inhalation	Mouse
	LCLo	400 ppm (4 hour(s))	Inhalation	Guinea pig

Potential chronic health effects

- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

12. Ecological information

There is no data available on the preparation itself.
Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See Sections 2 and 15 for details.

Ecotoxicity data

<u>Ingredient name</u>	<u>Result</u>	<u>Period</u>	<u>Species</u>	
Zinc powder (stabilized)	Daphnia magna (EC50)	48 hour(s)	2.8 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	0.238 mg/l	
	Oncorhynchus mykiss (LC50)	96 hour(s)	0.24 mg/l	
	Oncorhynchus mykiss (LC50)	96 hour(s)	0.41 mg/l	
	Oncorhynchus mykiss (LC50)	96 hour(s)	0.56 mg/l	
	Daphnia magna (LC50)	96 hour(s)	0.57 mg/l	
2-Methoxy-1-methylethyl acetate	Fathead minnow (pimephales promelas) (LC50)	96 hour(s)	161 mg/l	
	Daphnia. (EC50)	48 hour(s)	408 mg/l	
Diaceton alcohol	Daphnia. (EC50)	24 hour(s)	8750 mg/l	
	Goldfish (LC50)	24 hour(s)	>5000 mg/l	
	Bluegill sunfish (lepomis macrochirus) (LC50)	96 hour(s)	420 mg/l	
	Daphnia magna (EC50)	48 hour(s)	>1000 mg/l	
Zinc oxide	Oncorhynchus mykiss (LC50)	96 hour(s)	1.1 mg/l	
	Lepomis macrochirus (LC50)	96 hour(s)	>320 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	2246 mg/l	
	Goldfish (LC50)	24 hour(s)	2400 mg/l	
	Daphnia. (LC50)	24 hour(s)	8890 mg/l	
	Fathead minnow (pimephales promelas) (LC50)	96 hour(s)	3200 mg/l	
Butanone	daphnia (EC50)	48 hour(s)	5091 mg/l	
	Bluegill sunfish (lepomis macrochirus) (LC50)	24 hour(s)	5640 mg/l	
	Oncorhynchus mykiss (LC50)	96 hour(s)	3.3 mg/l	
	Oncorhynchus mykiss (LC50)	96 hour(s)	8.2 mg/l	
Xylene (mixture of isomeres)	Lepomis macrochirus (LC50)	96 hour(s)	8.6 mg/l	
	Lepomis macrochirus (LC50)	96 hour(s)	12 mg/l	
	Lepomis macrochirus (LC50)	96 hour(s)	13.3 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	13.4 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	527 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	630 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	732 mg/l	
	Cyclohexanone			

<u>Ingredient name</u>	<u>Persistence/degradability</u>						<u>Bioaccumulative potential</u>		
	<u>BOD₅</u>	<u>COD</u>	<u>ThOD</u>	<u>Aquatic half-life</u>	<u>Photolysis</u>	<u>Biodegradability</u>	<u>LogP_{ow}</u>	<u>BCF</u>	<u>Potential</u>
2-Methoxy-1-methylethyl acetate						Readily	0.43		low
Diaceton alcohol						Readily	0.5		low
Butanone	1.53792e+006 mg/l	1.85031e+006 mg/l				Readily	0.26		low
Xylene (mixture of isomeres)	387000 mg/l	430000 mg/l				Not readily	3.2		high
Cyclohexanone							1.8		low

Mobility : Non-volatile.

13. Disposal considerations

Do not allow to enter drains or watercourses.


Dispose of according to all federal, state and local applicable regulations.

Methods of disposal ; : Type: Hazardous chemical waste.
Waste of residues ; Location: European Union
Contaminated packaging Classification: H3 (Flammable liquid.)
 Disposal.: via incineration
 Storage: * (Storage of controlled substances must comply with applicable regulatory security requirements, Flammable materials should be stored in a separate safety storage cabinet or room. Inside storage should be in a standard flammable liquids storage warehouse, room or cabinet.)
 Recycling: * (Not applicable.)

European waste catalogue (EWC) : 080111

14. Transport information

International transport regulations

Regulatory Information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
ADR/RID Class	Not regulated.	-	-			Remarks Transport acc. ADR 2.2.3.1.5 / IMDG 2.3.2.5 [SP223]
IMDG Class	Not regulated.	-	-			Remarks No goods of Class 3 (IMDG - 2.3.2.5.)
IATA-DGR Class	1263	Paint. (Butanone, 2-Methoxy-1-methylethyl acetate)	3	III		Packaging instruction 309 / 310

15. Regulatory information

EU Regulations : The product is labelled as follows, in accordance with local regulations:

Hazard symbol(s) :



Highly flammable, Irritant, Dangerous for the environment.

Risk Phrases :

R11- Highly flammable.
 R36- Irritating to eyes.
 R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases :

S2- Keep out of the reach of children.
 S16- Keep away from sources of ignition - No smoking.
 S29/56- Do not empty into drains, dispose of this material and its container to hazardous or special waste collection point.
 S46- If swallowed, seek medical advice immediately and show this container or label.
 S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

Product use :

Classification and labeling have been performed according to EU directives 67/548/EEC, 1999/45/EC including amendments and the intended use.
 - Consumer applications, Industrial applications.

Other EU regulations

Tactile warning of danger : Yes, applicable.

Restriction to market directive : Not applicable.

EC Statistical classification (Tariff Code) : 3208 90 91

16. Other information

Full text of R-phrases appearing in section 2: : R11- Highly flammable.
R15- Contact with water liberates extremely flammable gases.
R10- Flammable.
R20- Harmful by inhalation.
R20/21- Harmful by inhalation and in contact with skin.
R36- Irritating to eyes.
R38- Irritating to skin.
R66- Repeated exposure may cause skin dryness or cracking.
R67- Vapors may cause drowsiness and dizziness.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Designation of symbols in Section 2 : F - Highly flammable
Xn - Harmful
Xi - Irritant
N - Dangerous for the environment.

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