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Reviewed on:	GALVA SPRAY	Version: 1.0

1. Section 1. Identification of the substance/mixture and of the company/undertaking:

- 1.1. Product identifier: **GALVA SPRAY - R 34547**
- 1.2. Relevant identified uses of the substance or mixture and uses advised against:
Weldable plating agent - protection against corrosion
- 1.3. Details of the supplier of the safety data sheet:
Identification of manufacturer/Supplier:
RETECH, s.r.o.
Vackova 1541/4
150 00 Praha-5 Stodůlky
Telephone: +420 327 596 128
Fax: +420 327 596 428
Information: info@retech.cz
- 1.4. Emergency telephone number:
RETECH Suchdol 212, Suchdol u Kutné Hory
Tel.+420 327 596 128 (7.30-16.00 hour)
Toxicology information number, Na bojišti 1, 128 08 PRAHA 2
Tel. +420 224 919 293, +420 224 915 402 (24 hours a day)

2. Section 2. Hazard identification:

- 2.1. Classification of the substance or mixture:
Classification according to Regulation (EC) No 1272/2008 [CLP]:
Flam. Aerosol 1 H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC:
F+ Extremely flammable. R12 Extremely flammable.
Xi Irritant R36 Irritating to eyes.
- R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

- 2.2. Label elements:
Labelling according to Regulation (EC) No 1272/2008 [CLP]:



Signal word: Danger

Hazard statements:

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P261 Avoid breathing vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P312 Call a POISON CENTER/doctor if you feel unwell.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
P501 Dispose of contents/container in accordance with national regulation.

Supplemental Hazard information:

EUH066 Repeated exposure may cause skin dryness or cracking.
EUH208 Contains Reaction product: bisphenol-A-(epichlorhydrin) (number average molecular weight ≤ 700).
May produce an allergic reaction.

Contained dangerous substances:

67-64-1 Acetone
123-86-4 n-Butyl acetate

2.3. Other hazards:

Results of PBT and vPvB assessment:

PBT: Not applicable

vPvB: Not applicable

Buildup of explosive mixtures possible without sufficient ventilation.

3. Section 3. Composition/information on ingredients:

3.2. Mixtures:

Description of the mixture: Active substance with propellant

Hazardous ingredients:

CAS: 67-64-1	Acetone	25-50 %
EINECS: 200-662-2	F, R11; Xi, R36; R66; R67	
Index nr.: 606-001-00-8	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336;	
Reg.nr.: 01-2119471330-49	EUH066	
CAS: 75-28-5	Isobutane	10-20 %
EINECS: 200-857-2	F+, R12	
Index nr.: 601-004-00-0	Press. Gas, H280; Flam. Gas 1, H220	
CAS: 123-86-4	n-Butyl acetate	10-20 %
EINECS: 204-658-1	R10; R66; R67	
Index nr.: 607-025-00-1	Flam. Liq. 3, H226; STOT SE 3, H336; EUH066	
Reg.nr.: 01-2119485493-29		
CAS: 74-98-6	Propane	2.5-10 %
EINECS: 200-827-9	F+, R12	
Index nr.: 601-003-00-5	Press. Gas, H280; Flam. Gas 1, H220	
CAS: 1330-20-7	Xylene (mixture of isomers)	2.5-10 %
EINECS: 215-535-7	R10; Xn, R20/21; Xi, R38	
Index nr.: 601-022-00-9	Flam. Liq. 3, H226; Acute Tox. 4, H312; Skin Irrit. 2,	
Reg.nr.: 02-2119752448-30	H315; Acute Tox. 4, H332	
CAS: 106-97-8	Butane (containing < 0.1% butadiene)	2.5-10 %
EINECS: 203-448-7	F+, R12	
Index nr.: 601-004-00-0	Press. Gas, H280; Flam. Gas 1, H220	
CAS: 7779-90-0	Trizinc bis(orthophosphate)	0.1-1 %
EINECS: 231-944-3	N, R50/53	
Index nr.: 030-001-00-6	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
CAS: 25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin);	0.1-1 %
EINECS: 500-033-5	Epoxy resin (number average molecular weight ≤ 700)	
Index nr.: 603-074-00-8	Xi, R36/38; R43; N, R51/53 Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319; Aquatic Chronic 2, H411	

For full text of H-statements and R-phrases: see SECTION 16.

4. Section 4. First aid measures:

4.1. Description of first aid measures:

After inhalation: Move the exposed person to fresh air at once.

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<p>After skin contact:</p> <p>After eye contact:</p> <p>After swallowing:</p> <p>4.2. Most important symptoms and effects, both acute and delayed:</p> <p>4.3. Indication of any immediate medical attention and special treatment needed:</p>	<p>Keep the affected person warm and at rest. Get medical attention if any discomfort continues. Immediately wash with water and soap and rinse thoroughly. Immediately remove any clothing soiled by the product. Rinse eyes for several minutes under running water, holding the eye lids open. Get medical attention if any discomfort continues. Do not induce vomiting. Call for a doctor immediately.</p> <p>No further relevant information available.</p> <p>No further relevant information available.</p>
<p>5. Section 5. Fire fighting measures:</p> <p>5.1. Extinguishing media: Suitable extinguishing agents: Fire-extinguishing powder, carbon dioxide, alcohol resistant foam. For safety reasons unsuitable extinguishing agents: Water with full jet.</p> <p>5.2. Special hazards arising from the substance or mixture: Formation of explosive gas-air mixtures is possible. Formation of toxic gases is possible during heating or in case of fire.</p> <p>5.3. Advice for firefighters: Wear protective clothing and self-contained breathing apparatus. Cool endangered receptacles with water spray. Dispose contaminated extinguishing water and remains after the fire in accordance with the official regulations.</p>	
<p>6. Section 6. Accidental release measures:</p> <p>6.1. Personal precautions, protective equipment and emergency procedures: Wear protective equipment see Section 8.2 Keep unprotected persons away. Ensure adequate ventilation. Keep away from source of ignition.</p> <p>6.2. Environmental precautions: Do not allow to enter sewage system, surface or ground water. Inform respective authorities in case of seepage into water course or sewage system.</p> <p>6.3. Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation. Dispose contaminated material as waste according to Section 13.</p> <p>6.4. Reference to other sections: See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.</p>	
<p>7. Section 7. Handling and storage:</p> <p>7.1. Precautions for safe handling: Ensure good ventilation/exhaustion at the workplace. Avoid contact with skin and eyes.</p> <p>Measures to prevent fire: Do not spray onto a naked flame or any incandescent material. Keep ignition sources away - Do not smoke. Protect against electrostatic charges. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.</p> <p>7.2. Conditions for safe storage including any incompatibilities: Technical measures and storage conditions: Observe official regulations on storing packagings with pressurized containers.</p> <p>Requirements for storage rooms and vessels: Observe official regulations on storing packagings with pressurized containers. Store in a cool location.</p>	

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Further information on storage conditions:

Protect from heat and direct sunlight.

7.3. Specific end use(s): No further relevant information available.

8. Section 8. Exposure controls/personal protection:

8.1. Control parameters:

Components with limit values that require monitoring at the workplace:

WEL: EH40/2005 (UK)

CAS	Substance	Long-term (8-hr TWA ref. period)		Short-term (15 minute ref. period)		Comments
		ppm	mg/m ³	ppm	mg/m ³	
67-64-1	Acetone	500	1210	1500	3620	
123-86-4	n-Butyl acetate	150	724	200	966	
106-97-8	Butane	600	1450	750	1810	Carc. (only applies if Butane contains more than 0.1 % of buta-1,3-diene)

OEL: 2000/39/EG, 2006/15/EG, 2009/161/EG (EU)

CAS	Name of agent	Eight hours		Short-term		Notation
		mg/m ³	ppm	mg/m ³	ppm	
67-64-1	Acetone	1210	500			
1330-20-7	Xylene, mixed isomers, pure	221	50	442	100	Skin

Biological limit values:

BMGV: EH40/2005 (UK)

CAS	Substance	BMGV	Sampling time
1330-20-7	Xylene, o-, m-, p- or mixed isomers	650 mmol methyl hippuric acid/mol creatinine in urine	Post shift

Additional information: The lists that were valid during the compilation were as basis.

8.2. Exposure controls:

Measures to prevent exposure: Ensure good ventilation/exhaustion at the workplace.

Personal protection equipment:

Breathing equipment: Use suitable respiratory protective device in case of insufficient ventilation. In case of brief exposure or low pollution use respiratory filter device (filter AX). In case of intensive or longer exposure use self-contained respiratory protective device.

Eye protection: Tightly sealed goggles

Protection of hands:

Protective gloves
The glove material must be impermeable and resistant against the product/ substance/ preparation.
Material of gloves: Butyl rubber
Recommended thickness of the material: ≥ 0.7 mm
Penetration time of glove material: ≥ 60 min
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Protection of skin:

Protective suit

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Do not inhale gases/ fumes/ aerosols.
Immediately remove all soiled and contaminated clothing.
Avoid eye and skin contact.

9. Section 9. Physical and chemical properties:

9.1. Information on basic physical and chemical properties:

Appearance:

Form: Aerosol

Colour: Grey

Odour: Acetone-like

Odour threshold: Not determined

Value pH: Not determined

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Melting point/freezing point:	Not determined
Initial boiling point/boiling range:	Not determined
Flash point:	Not applicable.
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Explosive properties:	The product is not explosive. However, formation of explosive air/steam mixtures is possible.
Explosive limits:	
- lower:	Not determined
- upper:	Not determined
Vapour pressure at 20°C:	Not determined
Vapour density at 20 °C:	Not determined
Density at 20°C:	0.787 g/cm ³
Relative density:	Not determined
Solubility in/miscibility with:	
- water	Not miscible or difficult to mix.
Partition coefficient (n-octanol/water):	
Ignition temperature:	> 200 °C
Decomposition temperature:	Not determined
Self-igniting:	Not determined
Viscosity:	Not determined
Oxidising properties:	Not determined
9.2. Other information:	
VOC:	654.8 g/l
Organic solvent:	83.2 %

10. Section 10. Stability and reactivity:

10.1. Reactivity:	No further relevant information available.
10.2. Chemical stability:	No decomposition if used according to specifications.
10.3. Possibility of hazardous reactions:	No dangerous reactions known.
10.4. Conditions to avoid:	No further relevant information available.
10.5. Incompatible materials:	No further relevant information available.
10.6. Hazardous decomposition products:	Carbon monoxide (CO), carbon dioxide (CO ₂).

11. Section 11. Toxicological information:

11.1. Information on toxicological effects:

Acute toxicity:

LD/LC50 values relevant for classification:

CAS	Substance	LD50 Oral, rat mg/kg	LD50 Dermal, rabbit mg/kg	LC50/4h Inhalative, rat mg/l
67-64-1	Acetone	5800	20000	76
75-28-5	Isobutane			> 50
123-86-4	n-Butyl acetate	13100	> 5000	> 21
74-98-6	Propane			20
1330-20-7	Xylene (mixture of isomers)	4300	2000	21.7
106-97-8	Butane			658
7779-90-0	Trizinc bis(orthophosphate)	> 5000		

Irritation: Skin: No irritating effect.
Eyes: Irritating effect.

Corrosivity: Not corrosive.

Sensitization: No sensitizing effect known.

Repeated dose toxicity: No further relevant information available.

Carcinogenicity: No further relevant information available.

Mutagenicity: No further relevant information available.

Toxicity for reproduction: No further relevant information available.

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Other information: Vapours have a narcotizing effect.
At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.




12. Section 12. Ecological information:

- 12.1. Toxicity:
Aquatic toxicity:
67-64-1 Acetone
EC50 / 48h 8800 mg/l (daphnia)
1330-20-7 Xylene (mixture of isomers)
EC50 / 48h 165 mg/l (daphnia)
- 12.2. Persistence and degradability: No further relevant information available.
- 12.3. Bioaccumulative potential: No further relevant information available.
- 12.4. Mobility in soil: No further relevant information available.
- Additional ecological information:
General notes: Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- 12.5. Results of PBT and vPvB assessment:
PBT: Not applicable
vPvB: Not applicable
- 12.6. Other adverse effects: No further relevant information available.

13. Section 13. Disposal considerations:

- 13.1. Waste treatment methods:
Product: Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Dispose in safe manner in accordance with local/national regulation.
- Uncleaned packagings: Disposal must be made according to official regulations.

14. Section 14. Transport information:

- 14.1. UN number:
ADR, IMDG, IATA UN1950
- 14.2. UN proper shipping name:
ADR 1950 AEROSOLS
IMDG AEROSOLS
IATA AEROSOLS, FLAMMABLE
- 14.3. Transport hazard class(es):
ADR
- | | | | | |
|--------------|---|----|-------|--|
| |  | | | |
| Class | 2 | 5F | Gases | |
| Hazard label | 2.1 | | | |
| IMDG |  | | | |
| Class | 2.1 | | | |
| Hazard label | 2.1 | | | |
| IATA |  | | | |
| Class | 2.1 | | | |
| Hazard label | 2.1 | | | |
- 14.4. Packing group:
ADR, IMDG, IATA Void
- 14.5. Environmental hazards:
Marine pollutant: No
- 14.6. Special precautions for user: Warning: Gases

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Danger Code (Kemler):	-
EMS Number:	F-D, S-U
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable
Transport/ Additional information:	
ADR	
Limited quantities (LQ)	LQ2
Transport category	2
Tunnel restriction code	D
UN "Model Regulation":	UN1950, AEROSOLS, 2.1

15. Section 15. Regulatory information:
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:
Used legislation: Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), as amended Directive 67/548/EEC and Directive 1999/45/EC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances, as amended Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (CLP), as amended Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, as amended
15.2. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Section 16. Other information:
These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.)
Relevant R-phrases and H-statements (Section 3):
R10 Flammable.
R11 Highly flammable.
R12 Extremely flammable.
R20/21 Harmful by inhalation and in contact with skin.
R36 Irritating to eyes.
R36/38 Irritating to eyes and skin.
R38 Irritating to skin.
R43 May cause sensitisation by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.
H220 Extremely flammable gas.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H280 Contains gas under pressure; may explode if heated.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
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.
Abbreviations and acronyms:

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ADR Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG International Maritime Code for Dangerous Goods
IATA International Air Transport Association
ICAO International Civil Aviation Organization
GHS Globally Harmonized System of Classification and Labelling of Chemicals
EINECS European Inventory of Existing Commercial Chemical Substances
CAS Chemical Abstracts Service (division of the American Chemical Society)
OEL Occupational Exposure Limit
WEL Workplace exposure limits
BMGV Biological monitoring guidance values
STEL Short-term exposure limit
TWA Time-Weighted Average
EC50 Effective concentration, 50 percent
LC50 Lethal concentration, 50 percent
LD50 Lethal dose, 50 percent
DNEL Derived No-Effect Level
PNEC Predicted No-Effect Concentration
LOEC Lowest Observed Effect Concentration
NOEC No Observed Effect Concentration
PBT Persistent Bioaccumulative Toxic
vPvB Very Persistent, Very Bioaccumulative
VOC Volatile Organic Compounds
MAL-Code Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

The product is labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

***Compared to the last version the data has been changed.**