SGALV - GALVANISING SPRAY 400ML PREMIUM

Usage: Corrosion prevention, excellent heat resistance, fast drying.

Premium Contents: Zinc Content 35% & aluminium to ensure a brighter finish

Temp Range: 150 continuous to 400°C intermittent. Boxed in 12s

SGALV

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

1.1 Product identifier

Trade name:	R224 BRIGHT ZINC GALVE SPRAY
Article number:	R224

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

Manufacturer/Supplier	Tygris Industrial Unit 31 Kyle Road Industrial Estate Irvine Ayshire KA12 8LE Tel +44 (0) 1294 311 066 Fax +44 (0) 1294 277 115 Email technical@tygrisindustrial.com
Further information obtainable from:	Technical Department

1.4 Emergency telephone number:
Tel +44 (0) 1294 311 066

SECTION 2 - HAZARDS INDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

 GHS02 flame		
Flam. Aerosol 1	H222-H229	Extremely flammable aerosol. Pressurised container: May burst if heated.
 GHS09 environment		
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.
 GHS07		
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

Xi; Irritant
R36: Irritating to eyes.

F+; Extremely flammable
R12: Extremely flammable

N; Dangerous for the environment
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R66-67: Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

Information concerning particular hazards for human and environment	The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version. At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent. Warning! Pressurized container. Has a narcotizing effect.
Classification system	The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008	The product is classified and labelled according to the CLP regulation
Hazard picotograms	 GHS02  GHS07  GHS09
Signal word	Danger
Hazard-determining components of labelling	Acetone
Hazard statements	H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects
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/sparks/open flames/hot surfaces. - No smoking. P251 Pressurized container: Do not pierce or burn, even after use. P211 Do not spray on an open flame or other ignition source. P280 Wear protective gloves / eye protection. P271 Use only outdoors or in a well-ventilated area. P260 Do not breathe mist/vapours/spray. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. P403 Store in a well-ventilated place. P501 Dispose of contents/container in accordance with local/regional/national/ international regulations
Additional information	EUH066 Repeated exposure may cause skin dryness or cracking

2.3 Other hazards

Results of PBT and vPvB assessment	PBT: Not applicable. vPvB: Not applicable

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Description: Active substance with propellant

Dangerous components

CAS: 67-64-1 EINECS: 200-662-2 Reg.nr.: 01-2119471330-49	Acetone Xi R36; F R11 R66-67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	25-<50%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32	butane (containing < 0.1% butadiene (203-450-8)) F+ R12 Flam. Gas 1, H220; Press. Gas, H280	10-<25%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane F+ R12 Flam. Gas 1, H220; Press. Gas, H280	10-<25%
CAS: 64742-95-6 EINECS: 265-199-0	Solvent naphtha (petroleum), light arom. Benzene<0.1% Xn R65; Xi R37; N R51/53 R10-66-67 Flam. Liq. 3, H226; Asp. Tox. 1, H304	3-<10%
CAS: 7440-66-6 EINECS: 231-175-3 Reg.nr.: 01-2119467174-37	zinc powder -zinc dust (stabilized) N R50/53 Aquatic Acute 1, H400; Aquatic Chronic 1, H410	1-<2.5%
CAS: 95-63-6 EINECS: 202-436-9	1,2,4-trimethylbenzene Xn R20; Xi R36/37/38; N R51/53 R10 Flam. Liq. 3, H226; Aquatic Chronic 2, H411; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	1-<2.5%
CAS: 71-36-3 EINECS: 200-751-6 Reg.nr.: 01-2119484630-38	butanol Xn R22; Xi R37/38-41 R10-67 Flam. Liq. 3, H226; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	1.0-<2.5%

CAS: 108-67-8 EINECS: 203-604-4	mesitylene Xi R36/37/38; N R51/53 R10 Flam. Liq. 3, H226; Aquatic Chronic 2, H411; STOT SE 3, H335	0.3-<1%
CAS: 98-82-8 EINECS: 202-704-5	isopropylbenzene Xn R65; Xi R37; N R51/53 R10 Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H335	0.3-<1%
CAS: 7779-90-0 EINECS: 202-704-5	trizinc bis(orthophosphate) Xn R65; Xi R37; N R51/53 R10 Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H335	0.3-<1%
CAS: 7779-90-0 EINECS: 231-944-3	trizinc bis(orthophosphate) N R50/53 Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.3-<1%
CAS: 1314-13-2 EINECS: 215-222-5 Reg.nr.: 01-2119463881-32	zinc oxide N R50/53 Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.1-<0.25%

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

After inhalation	Supply fresh air; consult doctor in case of complaints
After skin contact	Generally the product does not irritate the skin
After eye contact	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor
After swallowing	Do not induce vomiting; call for medical help immediately

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available

SECTION 5 - FIREFIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing agents	Water haze Fire-extinguishing powder Carbon dioxide Alcohol resistant foam
For safety reasons unsuitable extinguishing agents	Water with full jet

5.2 Special hazards arising from the substance or mixture

No further relevant information available

5.3 Advice for firefighters

Mount respiratory protective device

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away

6.2 Environmental precautions

Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water

6.3 Methods and material for containment and cleaning up

Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

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

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling	Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care
Information about fire - and explosion protection	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.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles	Store in a cool location. Observe official regulations on storing packagings with pressurized containers.
Information about storage in one common storage facility	Observe official regulations on storing packagings with pressurized containers
Further information about storage conditions	Keep receptacle tightly sealed. Do not seal receptacle gas tight. Store in cool, dry conditions in well sealed receptacles. Protect from heat and direct sunlight

7.3 Specific end use(s)

No further relevant information available

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities	No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace

67-64-1 Acetone	
WEL	Short-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 500 ppm
106-97-8 butane (containing < 0.1% butadiene (203-450-8))	
WEL	Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
74-98-6 propane	
OEL	Short-term value: 3600 mg/m³, 2000 ppm Long-term value: 1800 mg/m³, 1000 ppm
95-63-6 1,2,4-trimethylbenzene	
WEL	Long-term value: 125 mg/m³, 25 ppm ILV

71-36-3 butanol	
WEL	Short-term value: 154 mg/m³, 50 ppm Sk
108-67-8 mesitylene	
WEL	Long-term value: 125 mg/m³, 25 ppm ILV
98-82-8 isopropylbenzene	Short-term value: 250 mg/m³, 50 ppm
OEL	Long-term value: 125 mg/m³, 25 ppm Sk

DNELs

67-64-1 Acetone		
Oral	DNEL Long term-systemic	62 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	62 mg/kg bw/day (Consumer) 186 mg/kg bw/day (Worker)
Inhalative	DNEL Acute-local DNEL Long term-systemic	2420 mg/m3 (Worker) 200 mg/m3 (Consumer) 1210 mg/m3 (Worker)
7440-66-6 zinc powder -zinc dust (stabilized)		
Oral	DNEL Long term-systemic	50 mg/kg bw/day (Worker)
Dermal	DNEL Long term-systemic	5000 mg/kg bw/day (Consumer) 5000 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-systemic	2.5 mg/m3 (Consumer) 5 mg/m3 (Worker)
71-36-3 butanol		
Oral	DNEL Long term-systemic	3.125 mg/kg bw/day (Worker)
Inhalative	DNEL Long term-local	310 mg/m3 (Consumer) 55 mg/m3 (Worker)

PNECs

67-64-1 Acetone	
PNEC Freshwater sediment	30.4 mg/kg (Undefind)
PNEC Marine water	1.06 mg/l (Undefind)
PNEC Marine water sediment	3.04 (Undefind)
PNEC Soil	29.5 mg/kg (Undefind)
7440-66-6 zinc powder -zinc dust (stabilized)	
PNEC Freshwater	20.6 ug/l (Undefind)
PNEC Freshwater sediment	118 mg/kg (Undefind)
PNEC Marine water	6.1 ug/l (Undefind)
PNEC Marine water sediment	56.5 mg/kg (Undefind)
PNEC Sewage Treatment Plant	52 ug/l (Undefind)
PNEC Soil	56.6 mg/kg (Undefind)

Additional information
The lists valid during the making were used as basis

8.2 Exposure controls

General protective and hygienic measures	Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes. Avoid contact with the eyes and skin
Respiratory protection	In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Filter AX/P2
Protection of hands	 Protective gloves Solvent resistant gloves Selection of the glove material on considera-tion of the penetration times, rates of diffusion and the degradation
Material of gloves	Nitrile rubber, NBR
Penetration time of glove material	The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed
Eye protection	 Tightly sealed googles
Body protection	Use protective suit

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information	
Appearance:	
Form:	Aerosol
Colour:	According to product specification
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value	Not determined
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-44 °C
Flash point	-97 °C
Flammability (solid, gaseous):	Not applicable
Ignition temperature	365 °C
Decomposition temperature	Not determined
Self-igniting	Product is not selfigniting
Danger of explosion	Product is not explosive. However, formation of explosive air/ vapour mixtures are possible.
Explosion limits:	
Lower:	0.7 Vol %
Upper:	13.0 Vol %
Vapour pressure at 20 °C:	8300 hPa
Density at 20 °C:	0.711 g/cm³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not applicable
Solubility in / Miscibility with water:	Not miscible or difficult to mix
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined
Solvent content:	89.6 %
Organic solvents:	
Solids content	10.4 %

9.2. Other information

No further relevant information available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

10.2 Chemical stability

Thermal decomposition / conditions to be avoided	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	No dangerous decomposition products known

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD/LC50 values relevant for classification:

67-64-1 Acetone		
Oral	LD50	5800 mg/kg (rat)
Dermal	LD50	7800 mg/kg (rbt)
Inhalative	LC50/4h	>20 mg/l (rat)
64742-95-6 Solvent naphtha (petroleum), light arom. Benzene<0.1%		
Oral	LD50	>6800 mg/kg (rat)
Dermal	LD50	>3400 mg/kg (rabbit)
Inhalative	LC50/4 h	>10.2 mg/l (rat)
7440-66-6 zinc powder -zinc dust (stabilized)		
Oral	LD50	>2000 mg/kg (rat)
Inhalative	LC50/4h	>5.4 mg/l (rat)

95-63-6 1,2,4-trimethylbenzene

Oral	LD50	>3500 mg/kg (rat)
Dermal	LD50	3160 mg/kg (rabbit)
Inhalative	LC50	18 mg/L (rat)

71-36-3 butanol

Oral	LD50	2292 mg/kg (rat)
Dermal	LD50	3430 mg/kg (rbt)
Inhalative	LC50/4 h	>17.76 mg/l (rat)

7779-90-0 trizinc bis(orthophosphate)

Oral	LD50	5000 mg/kg (rat)

Primary irritant effect on the skin	No irritant effect
Primary irritant effect on the eye	Irritating effect
Sensitization:	No sensitizing effects known
Additional toxicological information	The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Irritant

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity

67-64-1 Acetone

EC50	8800 mg/l (Daphnia magna) 8300 (96h) mg/l (Fish)

7440-66-6 zinc powder -zinc dust (stabilized)

EC10/21d	59.2 ug/l (Daphnia magna)
EC10/72h	27.3 ug/l (algae)
EC50	354 ug/l (Daphnia Magna 48h)
EC50 (72h)	0.17 mg/l (Selenastrum capricornatum (72 h))
EC50/48h	1 mg/l (Daphnia magna)
EC50/96h	0.527 mg/l (algae)
LC50	238-269 ug/l (Pimephales promelas (96 h))
LC50/96h	0.41 mg/l (Oncorhynchus mykiss)
NOEC (72h)	9 mg/l (Ceratophyllum demersum) 0.017 mg/l (Pseudokirchneriella subcapitata)
NOEC/21d	178 ug/l (Crustaceeen-Palaemon elegans)
NOEC/4w	8.3 ug/l (Cyprinus carpio)
NOEC/72h	72.9 ug/l (Pseudokirchneriella subcapitata)

95-63-6 1,2,4-trimethylbenzene	
EC50	3.6 mg/l (Daphnia Magna 48h)
LC50	7.72 mg/l (Pimephales promelas (96 h))
71-36-3 butanol	
EC50	225 mg/l (Selenastrum capricornatum (72 h))
EC50/48h	1328 mg/l (Daphnia magna)
LC50/96h	1376 mg/l (Pimephales promelas)
NOEC (21 days)	4.1 mg/l (Daphnia magna)
7779-90-0 trizincbis(orthophosphate)	
EC50/48h	2.34 mg/l (Daphnia magna)
ErC(50) (72h)	0.14 mg/l (Desmodesmus subspicatus)
LC50/96h	0.14 mg/l (Oncorhynchus mykiss (96h))

12.2 Persistence and degradability

Easily biodegradable

12.3 Bioaccumulative potential

No further relevant information available

12.4 Mobility in soil

No further relevant information available

Ecotoxical effects	
Remark:	Toxic for fish
Additional ecological information	Keep receptacle tightly sealed. Do not seal receptacle gas tight. Store in cool, dry conditions in well sealed receptacles. Protect from heat and direct sunlight
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. Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable

12.6 Other adverse effects

No further relevant information available

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation	Must not be disposed together with household garbage. Do not allow product to reach sewage system
Uncleaned packaging	Toxic for fish
Recommendation	Disposal must be made according to official regulations

SECTION 14 - TRANSPORT INFORMATION

14.1 UN-Number

ADR, IMDG, IATA	UN1950

14.2 UN proper shipping name

ADR	UN1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
IMDG	AEROSOLS
IATA	AEROSOLS, flammable

14.3 Transport hazard class(es)

ADR	
Class	2 5F Gases.
Label	2.1
IMDG, IATA	
Class	2.1
Label	2.1

14.4 Packing group

ADR, IMDG, IATA	Void

14.5 Environmental hazards

Marine pollutant	No
Special marking (ADR):	Symbol (fish and tree)

14.6 Special precautions for user

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	1L
Excepted quantities (EQ) Code:	E0 Not permitted as Excepted Quantity
Transport category	2
Tunnel restriction code	
IMDG	1L
Limited quantities (LQ)	1L
Excepted quantities (EQ) Code:	E0 Not permitted as Excepted Quantity
UN "Model Regulation":	UN1950, AERSOLS, ENVIRONMENTALLY HAZARDOUS, 2.1

SECTION 15 - REGULATORY INFORMATION

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

National regulations	The Control of Substances Hazardous to Health Regulations 2002. The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002	
Technical instructions (air):	Class	Share in %
	NK	75-<100
VOC-CH	89.63 %	
VOC-EU	637.2 g/l	
Danish MAL Code	5-3	

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out

SECTION 16 - OTHER INFORMATION

Relevant phrases:

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

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.

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.

R10 Flammable.

R12 Extremely flammable.

R20 Harmful by inhalation.

R22 Harmful if swallowed.

R36 Irritating to eyes.

R36/37/38 Irritating to eyes, respiratory system and skin.

R37 Irritating to respiratory system.

R37/38 Irritating to respiratory system and skin.

R41 Risk of serious damage to eyes.

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.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.