

Version 1.0	Revision Date ()5/05/2015	Print Date 02/05/2016	
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION				
Material name	: A07341 ZEP PF	RO VANDAL MRK R062	01 20N14	
Material number	: 0000000000104	42217		
Manufacturer or supplier's details				

Company	:	Zep Inc.
Address	:	1310 Seaboard Industrial Blvd., NW Atlanta, GA 30318

Telephone	: 404-352-1680
-----------	----------------

Emergency telephone numbers

For SDS Information	:	Compliance Services 1-877-428-9937
For a Medical Emergency	:	877-541-2016 Toll Free - All Calls Recorded
For a Transportation	:	CHEMTREC: 800-424-9300 - All Calls Recorded.
Emergency		In the District of Columbia 202-483-7616

Note: This product is labeled as a consumer product in accordance with the United States Consumer Product Safety Commission regulations. The warnings presented below in this Safety Data Sheet (SDS) comply with the 2012 OSHA Hazard Communication Standard (GHS - Globally Harmonized System of Classification and Labeling). The requirements for the labeling and warnings of consumer products may differ from those required for GHS based hazard communication.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Aerosol containing a liquefied gas
Colour	clear
Odour	characteristic

GHS Classification

Flammable aerosols Gases under pressure Acute toxicity (Oral) Skin irritation Eye irritation Skin sensitisation	 Category 1 Liquefied gas Category 4 Category 2 Category 2A Category 1
GHS Label element	
Hazard pictograms	
Signal word	: Danger
Hazard statements	: H222 Extremely flammable aerosol. H280 Contains gas under pressure; may explode if heated.



sion 1.0	Revision Date 05/05/2015	Print Date 02/05/201
	H302 Harmful if swallowed. H315 Causes skin irritation.	
	H317 May cause an allergic skin H319 Causes serious eye irritatio	
Precautionary statements	 Prevention: P210 Keep away from heat, hot a and other ignition sources. No sr P211 Do not spray on an open fla P251 Pressurized container: Do use. P261 Avoid breathing dust/ fume P264 Wash skin thoroughly after P270 Do not eat, drink or smoke P272 Contaminated work clothing the workplace. P280 Wear eye protection/ face p P280 Wear protective gloves. Response: P301 + P312 + P330 IF SWALLO CENTER or doctor/ physician if y P302 + P352 IF ON SKIN: Wash P305 + P351 + P338 IF IN EYES for several minutes. Remove con easy to do. Continue rinsing. P333 + P313 If skin irritation or ra advice/ attention. P337 + P313 If eye irritation pers attention. P362 Take off contaminated clot Storage: P410 + P412 Protect from sunlig 	noking. ame or other ignition source not pierce or burn, even afte / gas/ mist/ vapours/ spray. handling. when using this product. g should not be allowed out protection. DWED: Call a POISON you feel unwell. Rinse mouth with plenty of soap and wat S: Rinse cautiously with wate tact lenses, if present and ash occurs: Get medical sists: Get medical advice/ hing and wash before reuse ht. Do not expose to
	temperatures exceeding 50 °C/ 1 Disposal: P501 Dispose of contents/contain regulation.	
Potential Health Effects	logulation.	
Carcinogenicity:		
IARC	No component of this product preser equal to 0.1% is identified as probab human carcinogen by IARC.	
ACGIH	No component of this product preser equal to 0.1% is identified as a carci carcinogen by ACGIH.	-
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential	
NTP	carcinogen by OSHA. No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.	

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS



Print Date 02/05/2016

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
ethanol	64-17-5	>= 20 - < 30
alkanes, C12-14-iso-	68551-19-9	>= 20 - < 30
benzyl alcohol	100-51-6	>= 20 - < 30
Citrus, ext.	94266-47-4	>= 10 - < 20
butane	106-97-8	>= 5 - < 10
propane	74-98-6	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice	: Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
lf inhaled	 If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	 If skin irritation persists, call a physician. Wash off immediately with plenty of water for at least 15 minutes. If on clothes, remove clothes.
In case of eye contact	 Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. If in eyes, rinse with water for 15 minutes.
If swallowed	 Keep respiratory tract clear. Never give anything by mouth to an unconscious person. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If symptoms persist, call a physician.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical Water spray jet
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion	: Carbon dioxide (CO2)



Version 1.0	Revision Date 05/05/2015	Print Date 02/05/2016
products	Carbon monoxide Smoke	
Specific extinguishing methods	:	
	Use extinguishing measures that circumstances and the surroundir	
Further information	 Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers. 	
Special protective equipment for firefighters	: Wear self-contained breathing ap necessary.	paratus for firefighting if

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	 Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Always replace cap after use. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being
	be employed in any process in which this mixture is being used. Do not breathe vapours or spray mist.



Version 1.0	Revision Date 05/05/2015	Print Date 02/05/2016
Conditions for safe storage	: BEWARE: Aerosol is pressurized.	Keep away from direct sun
Ŭ	exposure and temperatures over 50 or throw into fire even after use. Do red-hot objects. No smoking.	°C. Do not open by force
	Containers which are opened must kept upright to prevent leakage. Observe label precautions.	be carefully resealed and
	Keep in a dry, cool and well-ventilate Electrical installations / working mat the technological safety standards.	•
Materials to avoid	: Oxidizing agents	

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethanol	64-17-5	TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0
benzyl alcohol	100-51-6	TWA	10 ppm	US WEEL
butane	106-97-8	TWA	800 ppm 1,900 mg/m3	NIOSH REL
		TWA	800 ppm 1,900 mg/m3	OSHA P0
propane	74-98-6	TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,800 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,800 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,800 mg/m3	OSHA P0

Personal protective equipm	ent	
Respiratory protection	: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.	
Hand protection Remarks	: The suitability for a specific workplace should be discussed with the producers of the protective gloves.	
Eye protection	: Tightly fitting safety goggles	



Version 1.0	Revision Date 05/05/2015	Print Date 02/05/2016
	Wear face-shield and protective sui problems. Ensure that eyewash stations and s the workstation location.	
Skin and body protection	: impervious clothing Choose body protection according t concentration of the dangerous sub	
Hygiene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at t	he end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Aerosol containing a liquefied gas
Colour	: clear
Odour	: characteristic
Odour Threshold	: no data available
рН	: not applicable
Melting point/freezing point	: no data available
Boiling point	: 79.44 °C
Flash point	:
	no data available
Evaporation rate	: not determined
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: not determined
Density	: 0.844 g/cm3
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n- octanol/water	: no data available
Auto-ignition temperature	: not determined
Thermal decomposition	: no data available
Viscosity	
Viscosity, kinematic	: no data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity



Version 1.0	Revision Date 05/05/2015	Print Date 02/05/2016
Chemical stability	: Stable under normal conditions.	
Possibility of hazardous reactions	: No decomposition if stored and appli	ed as directed.
	Vapours may form explosive mixture	with air.
Conditions to avoid	: Heat, flames and sparks. Extremes of temperature and direct s	sunlight.
Incompatible materials	: Oxidizing agents	
Hazardous decomposition products	: Carbon oxides	

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:	
Acute oral toxicity	: Acute toxicity estimate : 2,000 mg/kg Method: Calculation method
Acute inhalation toxicity	: Acute toxicity estimate : 6 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Components:	
ethanol: Acute oral toxicity	: LD50 Oral rat: 7,060 mg/kg
Acute inhalation toxicity	: LC50 rat: 124.7 mg/l Exposure time: 4 h
benzyl alcohol: Acute dermal toxicity	: LD50 rabbit: 1,250 mg/kg
butane: Acute inhalation toxicity	: LC50 mouse: 1,237 mg/l Exposure time: 2 h
	LC50 rat: 1,355 mg/l
propane: Acute inhalation toxicity	: LC50 mouse: 1,237 mg/l Exposure time: 2 h
	LC50 rat: 658 mg/l Exposure time: 4 h



Version 1.0

Revision Date 05/05/2015

Print Date 02/05/2016

LC50 rat: 1,355 mg/l

Skin corrosion/irritation

Product:

Remarks: Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks: Irritating to eyes.

Respiratory or skin sensitisation

Product:

Remarks: Causes sensitisation.

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

ethanol: alkanes, C12-14-iso-: benzyl alcohol: Citrus, ext.: butane: propane:

STOT - single exposure

no data available

STOT - repeated exposure

no data available

Aspiration toxicity

no data available

Further information

Product:

Remarks: no data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity



Version 1.0	Revision Date 05/05/2015	Print Date 02/05/2016
no data available		
Persistence and degradability		
no data available Bioaccumulative potential		
Product:		
Partition coefficient: n- octanol/water <u>Components:</u> benzyl alcohol:	: Remarks: no data available	
Partition coefficient: n- octanol/water butane :	: Pow: 0.87	
Partition coefficient: n- octanol/water	: Pow: 2.89	
Mobility in soil		
no data available		
Other adverse effects		
no data available <u>Product:</u>		
Regulation	40 CFR Protection of Environme Stratospheric Ozone - CAA Sect Substances	•
Remarks	This product neither contains, no with a Class I or Class II ODS as Clean Air Act Section 602 (40 Cl + B).	defined by the U.S.
Additional ecological information	: An environmental hazard cannot event of unprofessional handling aquatic life.	

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with local regulations.
Contaminated packaging	 Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.



Version 1.0

Revision Date 05/05/2015

Print Date 02/05/2016

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA): ORM-D, CONSUMER COMMODITY

Transportation Regulation: IMDG (Vessel): UN1950, AEROSOLS, 2.1, - Limited quantity

Transportation Regulation: IATA (Cargo Air): UN1950, Aerosols, flammable, 2.1, - Limited quantity

Transportation Regulation: IATA (Passenger Air): UN1950, Aerosols, flammable, 2.1, - Limited quantity

Transportation Regulation: TDG (Canada): UN1950, AEROSOLS, 2.1, - Limited quantity

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazard	s : Fire Hazard Sudden Release of Pressure Hazard Acute Health Hazard
SARA 302	: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313	: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
California Prop 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
The components of th	is product are reported in the following inventories:
TSCA DSL	On TSCA Inventory This product contains the following components that are not on the Canadian DSL nor NDSL.



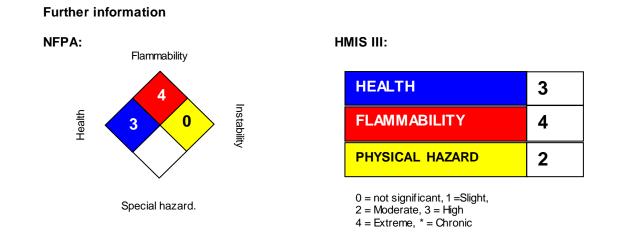
Version 1.0	Revision Date 05/05/2015	Print Date 02/05/2016

PICCSNot in compliance with the inventoryIECSCNot in compliance with the inventory

Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION



OSHA GHS Label Information:

Signal word	: Danger:
Hazard statements	: Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Harmful if sw allowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.
Precautionary statements	
	 Prevention: Keep aw ay from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash skin thoroughly after handling. Do not eat, drink or smoke w hen using this product. Contaminated w ork clothing should not be allow ed out of the w orkplace. Wear eye protection/face protection. Wear protective gloves. Response: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unw ell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and w ater. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and w ash before reuse.
	Storage: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Disposal: Dispose of contents/container in accordance with local regulation.

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it



Version 1.0

Revision Date 05/05/2015

Print Date 02/05/2016

is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®,Zep Professional®, Enforcer®, National Chemical[™], Selig[™], Misty®, Next Dimension[™], Petro®, i-Chem®, TimeMist®, TimeWick[™], MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National[™], FC Forward Chemicals®,Rexodan®, Mykal[™], and a number of private labeled brands.