

Chemwatch Material Safety Data Sheet  
 Issue Date: 21-Jan-2009  
 X9317SP

CHEMWATCH 45125  
 Version No:4.1.1.1  
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**Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME**

FLEETGUARD RESTORE PLUS - ACID COOLING SYSTEM CLEANER

**SYNONYMS**

"inhibited acid radiator cleaning treatment concentrate"

**PRODUCT USE**

Radiator cleaner for removing heavy rust and scale, oil contaminates and fuel contaminants.

**SUPPLIER**

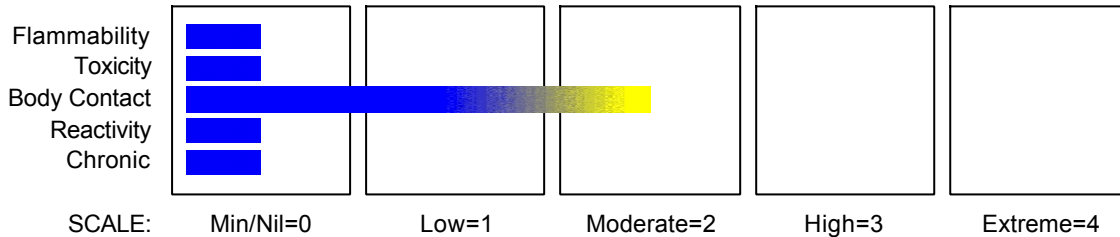
Company: Fleetguard  
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 31 Garden Street  
 Kilsyth  
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**Section 2 - HAZARDS IDENTIFICATION**

**STATEMENT OF HAZARDOUS NATURE**

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

**CHEMWATCH HAZARD RATINGS**



**RISK**

- Cumulative effects may result following exposure\*.
  - May produce discomfort of the eyes, respiratory tract and skin\*.
- \* (limited evidence).

**SAFETY**

- Do not breathe gas/fumes/vapour/spray.
- Avoid contact with skin.
- Avoid contact with eyes.
- Wear suitable gloves.
- Wear eye/face protection.
- In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.

**Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS**

| NAME                     | CAS RN    | %   |
|--------------------------|-----------|-----|
| phosphoric acid          | 7664-38-2 | 1-2 |
| additives, non hazardous |           | N/S |
| water                    | 7732-18-5 | >60 |

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## Section 4 - FIRST AID MEASURES

### SWALLOWED

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

### EYE

- If this product comes in contact with the eyes:
  - Wash out immediately with fresh running water.
  - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
  - Seek medical attention without delay; if pain persists or recurs seek medical attention.
  - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

### SKIN

- If skin contact occurs:
  - Immediately remove all contaminated clothing, including footwear.
  - Flush skin and hair with running water (and soap if available).
  - Seek medical attention in event of irritation.

### INHALED

- If fumes, aerosols or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

### NOTES TO PHYSICIAN

Treat symptomatically.

## Section 5 - FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

- The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas. Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances. In such an event consider:
  - foam.

### FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.

### FIRE/EXPLOSION HAZARD

- Non combustible.
- Not considered to be a significant fire risk.
- Expansion or decomposition on heating may lead to violent rupture of containers.
- Decomposes on heating and may produce toxic fumes of carbon monoxide (CO). Decomposition may produce toxic fumes of: carbon dioxide (CO<sub>2</sub>), phosphorus oxides (PO<sub>x</sub>), other pyrolysis products typical of burning organic material. May emit corrosive fumes.

### FIRE INCOMPATIBILITY

- None known.

### HAZCHEM

None

continued...

**Section 6 - ACCIDENTAL RELEASE MEASURES**

**MINOR SPILLS**

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.

**MAJOR SPILLS**

Moderate hazard.

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

**Section 7 - HANDLING AND STORAGE**

**PROCEDURE FOR HANDLING**

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Avoid contact with moisture.
- DO NOT allow clothing wet with material to stay in contact with skin.

**SUITABLE CONTAINER**

- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

**STORAGE INCOMPATIBILITY**

None known.

**STORAGE REQUIREMENTS**

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

**Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

**EXPOSURE CONTROLS**

| Source                       | Material                          | TWA ppm | TWA mg/m <sup>3</sup> | STEL ppm | STEL mg/m <sup>3</sup> | Peak ppm | Peak mg/m <sup>3</sup> | TWA F/CC | Notes |
|------------------------------|-----------------------------------|---------|-----------------------|----------|------------------------|----------|------------------------|----------|-------|
| Australia Exposure Standards | phosphoric acid (Phosphoric acid) |         | 1                     |          | 3                      |          |                        |          |       |

The following materials had no OELs on our records

- water: CAS:7732- 18- 5

**MATERIAL DATA**

FLEETGUARD RESTORE PLUS - ACID COOLING SYSTEM CLEANER:  
 Not available

**PHOSPHORIC ACID:**

The saturated vapour concentration of phosphoric acid exceeds the TLV. The TLV-TWA is based by analogy from comparable

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

experience and data for sulfuric acid.

Fumes of phosphorus pentoxide at concentrations between 0.8 and 5.4 mg/m<sup>3</sup> were reported to be noticeable but not uncomfortable whilst concentrations between 3.6 and 11.3 mg/m<sup>3</sup> produced coughing in unacclimatised workers but were tolerable.

WATER:

No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION



RESPIRATOR

• Type B-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

HANDS/FEET

- Wear chemical protective gloves, e.g. PVC.
- Wear safety footwear or safety gumboots, e.g. Rubber.

OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.

ENGINEERING CONTROLS

■ Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Clear acidic liquid with little or no odour; mixes with water.

PHYSICAL PROPERTIES

Liquid.  
 Mixes with water.

|                         |                |                           |                |
|-------------------------|----------------|---------------------------|----------------|
| State                   | Liquid         | Molecular Weight          | Not Applicable |
| Melting Range (°C)      | Not Available  | Viscosity                 | Not Available  |
| Boiling Range (°C)      | 104            | Solubility in water (g/L) | Miscible       |
| Flash Point (°C)        | Not Applicable | pH (1% solution)          | Not Available  |
| Decomposition Temp (°C) | Not Available  | pH (as supplied)          | 2.5- 3.0       |
| Autoignition Temp (°C)  | Not Available  | Vapour Pressure (kPa)     | Not Available  |

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

|                           |               |                                    |               |
|---------------------------|---------------|------------------------------------|---------------|
| Upper Explosive Limit (%) | Not Available | Specific Gravity (water=1)         | 1.11- 1.13    |
| Lower Explosive Limit (%) | Not Available | Relative Vapour Density<br>(air=1) | >1            |
| Volatile Component (%vol) | 50            | Evaporation Rate                   | Not Available |

## Section 10 - STABILITY AND REACTIVITY

## CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
  - Product is considered stable.
  - Hazardous polymerisation will not occur.
- For incompatible materials - refer to Section 7 - Handling and Storage.*

## Section 11 - TOXICOLOGICAL INFORMATION

## POTENTIAL HEALTH EFFECTS

## ACUTE HEALTH EFFECTS

## SWALLOWED

■ The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (eg. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

## EYE

■ The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

## SKIN

■ The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

## INHALED

■ Not normally a hazard due to non-volatile nature of product.  
There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.  
High concentrations cause inflamed airways and watery swelling of the lungs with oedema.

## CHRONIC HEALTH EFFECTS

■ Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

## TOXICITY AND IRRITATION

■ Not available. Refer to individual constituents.

## SKIN

phosphoric acid

GESAMP/EHS Composite List - GESAMP Hazard Profiles

D1: skin irritation/corrosion

3

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## Section 12 - ECOLOGICAL INFORMATION

No data

### Ecotoxicity

| Ingredient      | Persistence:<br>Water/Soil | Persistence: Air     | Bioaccumulation | Mobility |
|-----------------|----------------------------|----------------------|-----------------|----------|
| phosphoric acid | HIGH                       | No Data<br>Available | LOW             | HIGH     |

## Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

## Section 14 - TRANSPORTATION INFORMATION

### HAZCHEM:

None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

## Section 15 - REGULATORY INFORMATION

### POISONS SCHEDULE

None

### REGULATIONS

#### Regulations for ingredients

**phosphoric acid (CAS: 7664-38-2, 16271-20-8) is found on the following regulatory lists;**

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – United Kingdom"

**water (CAS: 7732-18-5) is found on the following regulatory lists;**

"Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – Norway"

**No data for Fleetguard Restore Plus - Acid Cooling System Cleaner (CW: 45125)**

continued...

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## Section 16 - OTHER INFORMATION

### INGREDIENTS WITH MULTIPLE CAS NUMBERS

| Ingredient Name | CAS                   |
|-----------------|-----------------------|
| phosphoric acid | 7664-38-2, 16271-20-8 |

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:  
[www.chemwatch.net/references](http://www.chemwatch.net/references).

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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*This is the end of the MSDS.*