

SAFETY DATA SHEET

Pow-R-Wash PR

CP0725 v3.1 RS 298-7729, 388-8702

RS REACH revision date 01/06/10

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : Pow-R-Wash PR
 Synonyms : ES1605, ES1605E
 Product type : aerosol
 Use of the substance/mixture : CLEANING PRODUCTS

Company/undertaking identification

Manufacturer : ITW Chemtronics
 8125 Cobb Center Drive
 Kennesaw, GA 30152
 Tel. 770-424-4888 or toll free 800-645-5244

Distributor : RS Components Ltd,
 Birchington Road, Corby, Northants, NN17 9RS.
 Tel: +44 (0) 1536 402888 (8am to 8pm)
 Email: technical.help@rs-components.com

Importer : ITW Contamination Control
 Skejby Nordlandsvej 307
 DK-8200 Aarhus N
 Denmark
 Tel +45 87 400 220
 Fax +45 87 400 222
 Email: info@itw-cc.com

e-mail address of person responsible for this SDS : askchemtronics@chemtronics.com

Emergency telephone number (with hours of operation) : Chemtrec - 1-800-424-9300 or collect 703-527-3887

2. HAZARDS IDENTIFICATION

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

Classification : F; R12
 Physical/chemical hazards : Highly flammable.
 Human health hazards : Irritating to eyes and skin.
 Environmental hazards : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation : Mixture

| Ingredient name | CAS number | % | EC number | Classification |
|--|------------|---------|-----------|--|
| hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6) | 107-83-5 | 30 - 40 | 203-523-4 | F; R11 [1] Xn; R65 Xi; R38 R67 N; R51/53 |
| hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6) | 96-14-0 | 10 - 20 | 202-481-4 | F; R11 [1] Xn; R65 Xi; R38 R67 N; R51/53 |
| butane | 106-97-8 | 10 - 20 | 203-448-7 | F+; R12 [2] |
| hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6) | 79-29-8 | 9 - 12 | 201-193-6 | F; R11 [1] Xn; R65 Xi; R38 R67 N; R51/53 |
| hexane, reaction mass of isomers containing < 5 % n-hexane (203-777-6) | 75-83-2 | 4 - 6 | 200-906-8 | F; R11 [1] Xn; R65 Xi; R38 R67 N; R51/53 |
| methylcyclohexane | 108-87-2 | 1 - 5 | 203-624-3 | F; R11 [1] Xn; R65 Xi; R38 R67 N; R51/53 |
| n-hexane | 110-54-3 | 1 - 1.5 | 203-777-6 | F; R11 [1] [2] Repr. Cat. 3; R62 |

Date of issue/Date of revision : 1/21/2010.

1/7

3. COMPOSITION/INFORMATION ON INGREDIENTS

| | | | | |
|--|--|--|--|---|
| See section 16 for the full text of the R-phrases declared above | | | | Xn; R48/20, R65 Xi; R38 R67 N; R51/53 |
|--|--|--|--|---|

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in section 8.

4. FIRST AID MEASURES

First-aid measures

- Inhalation** : Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

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

5. FIRE-FIGHTING MEASURES

Extinguishing media

- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : Highly flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

6. ACCIDENTAL RELEASE MEASURES

- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. HANDLING AND STORAGE

- Handling** : Do not breathe gas/fumes/vapour/spray. Do not ingest. Use only with adequate ventilation. Keep away from heat, sparks and flame. Wash thoroughly after handling.
- Storage** : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Avoid all possible sources of ignition (spark or flame). Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight.
- Packaging materials**
- Recommended** : Use original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| <u>Ingredient name</u> | <u>Occupational exposure limits</u> |
|--|--|
| butane | EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 1810 mg/m ³ 15 minute(s). STEL: 750 ppm 15 minute(s). TWA: 1450 mg/m ³ 8 hour(s). TWA: 600 ppm 8 hour(s). |
| n-hexane | EH40/2005 WELs (United Kingdom (UK), 8/2007). TWA: 72 mg/m ³ 8 hour(s). TWA: 20 ppm 8 hour(s). |

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.
- Exposure controls**
- Occupational exposure controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance

- Physical state** : Liquid.
Colour : Colourless.

Important health, safety and environmental information

- Boiling point** : Lowest known value: 50°C (122°F) (2,2-dimethylbutane). Weighted average: 62.66°C (144.8°F)
Melting point : May start to solidify at the following temperature: -100°C (-148°F) This is based on data for the following ingredient: 2,2-dimethylbutane. Weighted average: -139.22°C (-218.6°F)
Flash point : Closed cup: Lower than -18°C (0°F).
Explosive properties : Not considered to be a product presenting a risk of explosion.
Relative density : 0.67 (Water = 1)
Vapour density : >1 (Air = 1)
Evaporation rate (butyl acetate = 1) : >1 compared with butyl acetate

Other information

- Auto-ignition temperature** : Lowest known value: 224.85°C (436.7°F) (n-hexane).

10. STABILITY AND REACTIVITY

- Stability** : The product is stable.
Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. Avoid release to the environment. Refer to special instructions/safety data sheet.
Materials to avoid : Highly reactive or incompatible with the following materials:
oxidizing materials
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Potential acute health effects

- Inhalation** : Vapours may cause drowsiness and dizziness.
Ingestion : Harmful if swallowed.
Skin contact : irritant
Eye contact : irritant

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|------------------------|---------|--------------|-----------|
| Butane | LC50 Inhalation Vapour | Rat | 658 g/m3 | 4 hours |
| methylcyclohexane | LD Dermal | Rabbit | >86700 mg/kg | - |
| | LD50 Oral | Rat | >3200 mg/kg | - |
| n-hexane | LD50 Oral | Rat | 25 g/kg | - |
| | LDLo | Rat | 9100 mg/kg | - |
| | Intraperitoneal | | | |
| | TDLo Oral | Rat | 20000 mg/kg | - |
| | LC50 Inhalation Vapour | Rat | 627000 mg/m3 | 3 minutes |
| | LC50 Inhalation Gas. | Rat | 48000 ppm | 4 hours |

Potential chronic health effects

| Product name | List name | Name on list | Classification | Notes |
|--------------|--|--------------|----------------|-------|
| butane | UK Occupational Exposure Limits EH40 - WEL | butane | Carc. | |

- Chronic effects** : No known significant effects or critical hazards.
Carcinogenicity : Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
Ingestion : No specific data.

11. TOXICOLOGICAL INFORMATION

- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : No specific data.
- Target organs** : Contains material which causes damage to the following organs: eye, lens or cornea.
Contains material which may cause damage to the following organs: the nervous system, peripheral nervous system, upper respiratory tract, skin, central nervous system (CNS).

12. ECOLOGICAL INFORMATION

- Environmental effects** : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Aquatic ecotoxicity





| Product/ingredient name | Test | Result | Species | Exposure |
|--------------------------------|---|---|---|-----------------|
| methylcyclohexane | - | Acute LC50 180000 to 230000 ug/L Fresh water | Fish - Golden shiner - Notemigonus crysoleucas | 96 hours |
| | - | Acute LC50 62000 to 80000 ug/L Fresh water | Fish - Golden shiner - Notemigonus crysoleucas | 96 hours |
| | - | Acute LC50 55000 to 73000 ug/L Fresh water | Fish - Golden shiner - Notemigonus crysoleucas | 96 hours |
| | - | Acute LC50 41000 to 65000 ug/L Fresh water | Fish - Golden shiner - Notemigonus crysoleucas | 96 hours |
| | - | Acute LC50 5800 ug/L Marine water | Fish - Striped bass - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling) - 9.2 cm - 8.5 g | 96 hours |
| | - | Acute LC50 235000 to 295000 uL/L Fresh water | Fish - Golden shiner - Notemigonus crysoleucas | 96 hours |
| n-hexane | - | Acute LC50 113000 ug/L Fresh water | Fish - Mozambique tilapia - Tilapia mossambica - 99 mm - 10 g | 96 hours |
| | - | Acute LC50 2500 to 2980 ug/L Fresh water | Fish - Fathead minnow - Pimephales promelas - 31 days - 20.4 mm - 0.123 g | 96 hours |
| Conclusion/Summary | : Not available. | | | |
| <u>Biodegradability</u> | | | | |
| Conclusion/Summary | : Not available. | | | |
| Other adverse effects | : No known significant effects or critical hazards. | | | |

13. DISPOSAL CONSIDERATIONS

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

14. TRANSPORT INFORMATION**International transport regulations**

14. TRANSPORT INFORMATION

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label | Additional information |
|------------------------|-----------|--|---------|-----|---|------------------------|
| ADR/RID Class | 1950 | Aerosol. Flammable | 2 | - |  | - |
| ADN/ADNR Class | 1950 | Aerosol. Flammable | 2 | - |  | - |
| IMDG Class | 1950 | Aerosol. Class 2.1 Limited quantity | 2.1 | |  | - |
| IATA Class | 1950 | Aerosol. Flammable | 2.1 | |  | - |

PG* : Packing group

15. REGULATORY INFORMATIONEU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Hazard symbol or symbols :



Highly flammable

Risk phrases

: R12- Extremely flammable.

Safety phrases

: S16- Keep away from sources of ignition - No smoking. S23- Do not breathe gas/fumes/vapour/spray S51- Use only in well-ventilated areas. S2- Keep out of the reach of children.

Product use

: Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use. Industrial applications

Europe inventory

: All components are listed or exempted.

Other EU regulations

Tactile warning of danger

: Yes, applicable.

16. OTHER INFORMATION

Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK)

: R12- Extremely flammable.
R11- Highly flammable.
R62- Possible risk of impaired fertility.
R48/20- Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65- Harmful: may cause lung damage if swallowed.
R38- Irritating to skin.
R67- Vapours may cause drowsiness and dizziness.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications referred to in sections 2 and 3 - United Kingdom (UK)

: F+ - Extremely flammable
F - Highly flammable
Repr. Cat. 3 - Toxic to reproduction category 3
Xn - Harmful
Xi - Irritant
N - Dangerous for the environment

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Date of previous issue

: No previous validation.

Version

: 1

Prepared by

: Not available.

☑ Indicates information that has changed from previously issued version.

Notice to reader

16. OTHER INFORMATION

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.