

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

This SDS is used for the following Arcot Solvent-Based Cleaners & Degreasers:

Arcot #9739 BRAKE CLEAN (and other versions of 9739)

Arcot #9739NF DISSOLVE-IT Solvent-Based Parts Cleaner

Manufacturer: Arcot Manufacturing Corporation, 2950 Mowery Road, Houston, Texas, U.S.A. 77045

Emergency Response Telephone: 1-800-633-8253 (Account #9390)

Arcot Customer Service Telephone: 713-413-9700

Website: www.ArcotManufacturing.com

Recommended Use: Solvent-based cleaning of metal surfaces and parts

Restrictions on Use: Do not use on hot or running motors, engines or equipment. Do not use around ignition sources. Read label and Safety Data Sheet carefully and completely before handling and use.

2. HAZARDS IDENTIFICATION

GHS Classification:

Flammable liquids: Category 2

Skin corrosion/irritation: Category 2

Reproductive toxicity: Category 2

Specific target organ toxicity - single exposure: Category 3 (Central nervous system)

Aspiration hazard: Category 1

GHS Label element

Hazard pictograms:



Signal Word: **DANGER**

Hazard statements:

H225 Highly flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H361 Suspected of damaging fertility or the unborn child.

Precautionary statements:

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

- P241 Use explosion-proof electrical, ventilating, lighting and equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing mist, vapors and spray.
- P264 Wash skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves, eye protection and face protection.
- P281 Use personal protective equipment as required.

Response:

- P301 + P310 + P331 IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
- P308 + P313 If exposed or concerned: Get medical attention.
- P331 Do NOT induce vomiting.
- P332 + P313 If skin irritation occurs: Get medical attention.
- P362 Take off contaminated clothing and wash before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

- P233 Keep container tightly closed.
- P235 Keep cool.
- P403 Store in a well-ventilated place.
- P405 Store locked up.

Disposal:

- P501 Dispose of contents and container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients | CAS # | Concentration |
|---|-------|---------------|
| Ingredients are considered trade secrets. However, all hazardous aspects of the ingredients and of this mixture are considered and included. The exact percentage of composition has been withheld as a trade secret. This SDS is used for a group of substantially similar mixtures. | | |

4. FIRST-AID MEASURES

General advice: Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. Do not leave the victim unattended.

If inhaled: Consult a physician after significant exposure. If unconscious, place in recovery position and seek immediate medical attention.

In case of skin contact: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact: Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed: Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media: High volume water jet

Specific hazards during firefighting: Do not allow run-off from firefighting to enter drains or water courses.

Hazardous combustion products: No hazardous combustion products are known

Specific extinguishing methods: Use a water spray to cool fully closed containers.

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.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

NFPA Flammable and Combustible Liquids Classification: Flammable Liquid Class IB

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 vapors accumulating to form explosive concentrations. Vapors 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: Contain spillage, and then collect with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local and national regulations (see section 13).

7. HANDLING AND STORAGE

Advice on safe handling:

- Avoid formation of aerosol.
- Do not breathe vapors.
- 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.
 Open drum carefully as content may be under pressure.
 Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage: No smoking.
 Keep container tightly closed in a dry and well-ventilated place.
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.
 Observe label precautions.
 Electrical installations/working materials must comply with the technological safety standards.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters:

| Value type (Form of exposure) | Control Parameters / Permissible concentration | Basis |
|----------------------------------|---|-----------|
| TWA | 50 ppm | ACGIH |
| TWA | 50 ppm 180 mg/m ³ | NIOSH REL |
| TWA | 500 ppm 1,800 mg/m ³ | OSHA Z-1 |
| TWA | 50 ppm 180 mg/m ³ | OSHA P0 |

Personal protective equipment:

Respiratory protection: No personal respiratory protective equipment normally required. In the case of vapor formation use a respirator with an approved filter.

Hand protection: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection: Eye wash bottle with pure water. Tightly fitting safety goggles.

Skin and body protection: Impervious clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: When using, do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---------------------------|
| Appearance | liquid |
| Color | colorless, clear |
| Odor | mild |
| Odor Threshold | No data available |
| pH | not applicable |
| Freezing Point | No data available |
| Boiling Point (Boiling point/boiling range) | 63 - 69 °C (145 - 156 °F) |

| | |
|---------------------------|---|
| Flash point | -26 °C (-15 °F) |
| Evaporation rate | No data available |
| Flammability (solid, gas) | No data available |
| Burning rate | No data available |
| Upper explosion limit | 7.7 % (V) |
| Lower explosion limit | 1.2 % (V) |
| Vapor pressure | 176 hPa @ 20 °C (68 °F) Calculated Vapor Pressure |
| Relative vapor density | 3 AIR=1 |
| Relative density | 0.677 @ 15.6 °C (60.1 °F) Reference substance: (water = 1) |
| Density | 0.6727 - 0.6756 g/cm ³ |
| Bulk density | No data available |
| Solubility | Water solubility: negligible Solubility in other solvents: No data available |
| Partition coefficient: | |
| n-octanol/water | Pow: 3.9 |
| Auto-ignition temperature | 258°C (496°F) |
| Thermal decomposition | No data available |

10. STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Vapors may form explosive mixture with air.

Conditions to avoid: Extremes of temperature and direct sunlight. Heat, flames and sparks.

Incompatible materials: Oxidizing agents. Reducing agents

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity: LD50 (rat): 16,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity: LC50 (rat): > 31.86 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity: LD50 (rabbit): > 2,000 mg/kg
Assessment: The component/mixture is low toxic after single contact with skin.

Skin corrosion/irritation: Irritating to skin.

Species: rabbit; Result: Irritating to skin.

Eye damage/eye irritation

Species: rabbit; Result: No eye irritation

Respiratory or skin sensitization

Test Type: lymph node assay; Species: mouse
Result: Does not cause skin sensitization.

Germ cell mutagenicity

Genotoxicity in vitro: Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo: Test Type: Dominant lethal assay
Test species: mouse (male)
Application Route: inhalation (vapor)
Exposure time: 6/d, 5/wk for 8 wks
Result: negative

Germ cell mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Species: rat
Application Route: inhalation (vapor)
Exposure time: 2 yrs
Frequency of Treatment: 5 days/week
NOAEL: 9,000 ppm
Method: OECD Test Guideline 451
Result: did not display carcinogenic properties
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Carcinogenicity: No evidence of carcinogenicity in animal studies.

| | |
|-------|---|
| IARC | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| ACGIH | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential 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 carcinogen by OSHA. |
| NTP | 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. |

Reproductive toxicity

Effects on fertility Species: rat, male
Application Route: inhalation (vapor)

Frequency of Treatment: 6 days/week
General Toxicity - Parent: LOAEL: 5,000 ppm
Symptoms: Testicular effects

Effects on fetal development Test Type: Fertility/early embryonic development
Species: mouse
Application Route: inhalation (vapor)
Duration of Single Treatment: 12 d
Developmental Toxicity: LOAEC: 200 ppm

Reproductive toxicity: Some evidence of adverse effects on sexual function and fertility, based on animal experiments

STOT - single exposure: No data available

Exposure routes: Inhalation
Target Organs: Central nervous system
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure: No data available

Repeated dose toxicity

Species: rat
NOAEL: 568 mg/kg
Application Route: Oral
Exposure time: 120 d
Number of exposures: 5 d/wk

Aspiration toxicity: The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Further information: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Product may degrease the skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 2.5 mg/l;
Exposure time: 96 h; Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): 2.1 mg/l; Exposure time: 48 h

Toxicity to algae: EbL50 (Pseudokirchneriella subcapitata (green algae)): 26 mg/l;

End point: Biomass; Exposure time: 72 h; Test Type: static test;

Analytical monitoring: no; Method: OECD Test Guideline 201; GLP: yes

Ecotoxicology Assessment

Acute aquatic toxicity: Toxic to aquatic life.

Chronic aquatic toxicity: Toxic to aquatic life with long-lasting effects.

Persistence and degradability

Biodegradability: aerobic; Inoculum: activated sludge

Result: Readily biodegradable; Biodegradation: 83 %; Exposure time: 28 d

Bioaccumulative potential

Partition coefficient: n-octanol/water
log Pow: 3.90 - 4.11

Mobility in soil: No data available

Other adverse effects: No data available

Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A + B).

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long-lasting effects.

13. DISPOSAL CONSIDERATIONS

Disposal methods:

Waste from residues Dispose of in accordance with all applicable local, state and federal 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.

14. TRANSPORT INFORMATION

IATA (International Air Transport Association): UN1993, Flammable liquids, n.o.s. (contains Isopropanol, Ethanol Solutions and Petroleum Distillates), 3, PGII. Do not ship via air. Packaged for ground transportation only.

IMDG (International Maritime Dangerous Goods): UN1993, Flammable liquids, n.o.s. (contains Isopropanol, Ethanol Solutions and Petroleum Distillates), 3, PGII. Flash Point:-26°C (-15°F). Do not ship via air. Packaged for ground transportation only.

DOT (Department of Transportation): UN1993, Flammable liquids, n.o.s. (contains Isopropanol, Ethanol Solutions and Petroleum Distillates), 3, PGII.

15. REGULATORY INFORMATION

OSHA Hazards: Flammable liquid, Moderate skin irritant, Teratogen, Reproductive hazard

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

CERCLA Reportable Quantity:

| Component RQ (lbs) | Calculated product RQ (lbs) |
|--------------------|-----------------------------|
| 5000 | 5000 |

SARA 304 Extremely Hazardous Substances Reportable Quantity: This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Fire Hazard
Acute Health Hazard
Chronic Health Hazard

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: The product is subject to reporting levels established by SARA Title III, Section 313:

Clean Air Act

Based on its components, this product would be listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMII Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. Clean Water Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. Clean Water Act, Section 311, Table 117.3.

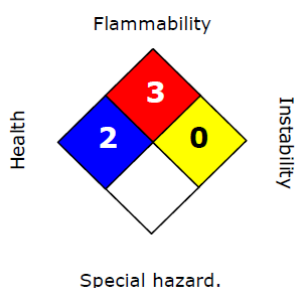
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307.

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.

16. OTHER INFORMATION

NFPA:



HMIS III:

| | |
|------------------------|-----------|
| HEALTH | 2* |
| FLAMMABILITY | 3 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

HMIS & NFPA ratings involve data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this SDS must be considered.

Key or legend to abbreviations and acronyms used in the safety data sheet:

| | |
|-------|---|
| ACGIH | American Conference of Government Industrial Hygienists |
| AICS | Australia, Inventory of Chemical Substances |
| CNS | Central Nervous System |
| CAS | Chemical Abstract Service |
| EC50 | Effective Concentration |
| EC50 | Effective Concentration 50% |
| EGEST | EOSCA Generic Exposure Scenario Tool |

| | |
|--------|--|
| EOSCA | European Oilfield Specialty Chemicals Association |
| EINECS | European Inventory of Existing Chemical Substances |
| GHS | Globally Harmonized System |
| >= | Greater Than or Equal To |
| IC50 | Inhibition Concentration 50% |
| IARC | International Agency for Research on Cancer |
| <= | Less Than or Equal To |
| LC50 | Lethal Concentration 50% |
| LD50 | Lethal Dose 50% |
| LOAEL | Lowest Observed Adverse Effect Level |
| NFPA | National Fire Protection Agency |
| NIOSH | National Institute for Occupational Safety & Health |
| NTP | National Toxicology Program |
| NOAEL | No Observable Adverse Effect Level |
| NOEC | No Observed Effect Concentration |
| OSHA | Occupational Safety & Health Administration |
| PEL | Permissible Exposure Limit |
| PICCS | Philippines Inventory of Commercial Chemical Substances |
| PRNT | Presumed Not Toxic |
| RCRA | Resource Conservation Recovery Act |
| STEL | Short-term Exposure Limit |
| SARA | Superfund Amendments and Reauthorization Act. |
| TLV | Threshold Limit Value |
| TWA | Time Weighted Average |
| TSCA | Toxic Substance Control Act |
| UVCB | Unknown or Variable Composition, Complex Reaction Products, and Biological Materials |
| WHMIS | Workplace Hazardous Materials Information System |

DISCLAIMER: The information contained herein is based upon data obtained from sources believed to be reliable and reflects our best professional judgment. Since it is impossible to anticipate all of the conditions under which our products may be used, we do not guarantee that the recommendations will be adequate for all individuals and situations. Each user of this product should determine the suitability of the product for his or her particular purpose and should comply with all federal, state and local regulations. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. We shall not be held liable for any damage resulting from handling or from contact with the above product or from improper use of our products. We do not provide any warranties, expressed or implied, and do not assume any responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration, and investigation. You should satisfy yourself that you have all current data relevant to your particular use. We update SDS and labels on a regular basis. Please do not hesitate to contact us for current information.

Revision Date: November 11, 2015