SAFETY DATA SHEET



1. Product and Company Identification

Product identifier Tri Pow'r HD 4x (4371-90)

Other means of identification Not available Recommended use Coil Cleaner None known. Recommended restrictions Nu-Calgon Manufacturer information

> 2611 Schuetz Road St. Louis, MO 63043 US

Phone: 314-469-7000 / 800-554-5499

Emergency Phone: 1-800-424-9300 (CHEMTREC)

Supplier See above.

2. Hazards Identification

Physical hazards Corrosive to metals Category 1 Skin corrosion/irritation Health hazards Category 1 Serious eye damage/eye irritation Category 1

Environmental hazards WHMIS 2015 defined hazards

Label elements

Not classified. Not classified



Signal word Danger

Hazard statement May be corrosive to metals. Causes severe skin burns and eye damage.

Precautionary statement

Prevention Keep only in original packaging. Do not breathe mist or vapor. Wash thoroughly after handling.

Wear protective gloves, protective clothing, eye protection and face protection.

Absorb spillage to prevent material-damage. IF SWALLOWED: Rinse mouth. Do NOT induce Response

vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. Specific treatment (see information on this label). IF IN EYES: Rinse cautiously with water for several

minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage Store locked up. Store in a corrosion resistant container with a resistant inner liner.

Dispose of container in accordance with local, regional, national and international regulations. Disposal

WHMIS 2015: Health Hazard(s) not otherwise classified

(HHNOC)

None known

WHMIS 2015: Physical Hazard(s) not otherwise

classified (PHNOC)

Hazard(s) not otherwise

classified (HNOC)

None known

None known.

Supplemental information None.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Alkyl polyglycoside		110615-47-9	1-5*
Amines, C10-16 alkyldimethyl, N-oxides		70592-80-2	1-5*
Glucopyranose, oligomeric, decyl octyl glycosides		68515-73-1	1-5*

Chemical name	Common name and synonyms	CAS number	%
Potassium carbonate		584-08-7	1-5*
Potassium hydroxide		1310-58-3	5-10*
Silicic acid, sodium salt		1344-09-8	5-10*

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments

US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

*CANADA GHS: The exact percentage (concentration) of composition has been withheld as a

trade secret.

4. First Aid Measures

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a

POISON CENTER or doctor.

Skin contact

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Specific treatment (see information on this label). Wash contaminated clothing before reuse.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Ingestion

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or

doctor.

Most important symptoms/effects, acute and

delayed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General information

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear rubber gloves and chemical splash goggles. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media

Unsuitable extinguishing media

Foam. Carbon dioxide. Dry chemical.

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Firefighters should wear a self-contained breathing apparatus.

Special protective equipment and precautions for firefighters

Firefighters should wear full protective clothing including self-contained breathing apparatus.

Fire-fighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods Hazardous combustion

products

Use standard firefighting procedures and consider the hazards of other involved materials.

May include and are not limited to: Oxides of carbon. Oxides of nitrogen.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Stop leak if you can do so without risk. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and Storage

Precautions for safe handling

Use only with adequate ventilation. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. Keep container tightly closed. When using do not eat or drink.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in a cool, dry place out of direct sunlight. Store in a corrosion resistant container with a resistant inner liner. Store in a closed container away from incompatible materials. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Туре	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Туре	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Туре	Value	
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Туре	Value	
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Туре	Value	
Potassium hydroxide (CAS	Ceiling	2 mg/m3	

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Туре	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Туре	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Туре	Value	
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3	

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines	Chemicals listed in section 3 that are not listed here do not have established limit values for
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ACGIH.

Appropriate engineering

controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection Rubber gloves. Confirm with a reputable supplier first.

Other Wear appropriate chemical resistant clothing. As required by employer code.

Respiratory protection Where exposure quideline levels may be exceeded, use an approved NIOSH respirator.

Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134),

CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards Not applicable.

General hygiene considerations

When using do not eat or drink.

9. Physical and Chemical Properties

Clear **Appearance** Liquid. Physical state **Form** Liquid Color Orange Odor Pine

Odor threshold Not available. pН 13.6 (Concentrate) Not available. Melting point/freezing point Initial boiling point and boiling Not available.

range

Pour point Not available. Not available. Specific gravity Partition coefficient Not available. (n-octanol/water)

Flash point Not available. **Evaporation rate** Not available. Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits Flammability limit - lower Not available.

(%)

Flammability limit - upper

Not available.

Explosive limit - lower (%) Not available. Explosive limit - upper (%) Not available. Vapor pressure Not available. Not available. Vapor density Relative density Not available. Solubility(ies) Not available. Not available. **Auto-ignition temperature Decomposition temperature** Not available.

Other information

Viscosity

Not explosive. **Explosive properties** Not oxidizing. **Oxidizing properties**

10. Stability and Reactivity

Reactivity May be corrosive to metals. Reacts violently with acids. This product may react with strong

oxidizing agents.

Not available.

Possibility of hazardous

reactions

Hazardous polymerization does not occur.

Chemical stability Stable under recommended storage conditions.

Conditions to avoid Do not mix with other chemicals. Acids. Strong oxidizing agents. Metals. Incompatible materials

Hazardous decomposition

products

May include and are not limited to: Oxides of carbon. Oxides of nitrogen.

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11. Toxicological Information

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Information on likely routes of exposure

IngestionInhalationCauses digestive tract burns. May cause stomach distress, nausea or vomiting.InhalationMay cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact Causes severe skin burns.

Eye contact Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including

blindness could result.

Information on toxicological effects

Acute toxicity

Components Species Test Results

Alkyl polyglycoside (CAS 110615-47-9)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg, 24 Hours, ECHA

Inhalation

LC50 Not available

Oral

LD50 Rat > 5000 mg/kg, ECHA

> 2000 mg/kg, ECHA

Amines, C10-16 alkyldimethyl, N-oxides (CAS 70592-80-2)

Acute

Dermal

LD50 Not available

Inhalation

LC50 Not available

Oral

LD50 Rat 1330 mg/kg, Charlotte Products

Glucopyranose, oligomeric, decyl octyl glycosides (CAS 68515-73-1)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg, 24 Hours, ECHA

Inhalation

LC50 Not available

Oral

LD50 Rat > 5000 mg/kg, ECHA

> 2000 mg/kg, BASF

Potassium carbonate (CAS 584-08-7)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg, 24 Hours, ECHA

Inhalation

LC50 Rat $> 5 \, mg/L$, 4.5 Hours, Armand

Oral

LD50 Mouse 2570 mg/kg, HSDB

Rat > 2000 mg/kg, ECHA

2100 mg/kg, ECHA 1983 mg/kg, ECHA 1900 mg/kg, ECHA 1870 mg/kg, LOLI Components Species Test Results

Potassium hydroxide (CAS 1310-58-3)

AcuteDermal

LD50 Not available

Inhalation

LC50 Not available

Oral

LD50 Rat 388 mg/kg, ECHA

365 mg/kg, ECHA 333 mg/kg, ECHA

273 mg/kg

Silicic acid, sodium salt (CAS 1344-09-8)

Acute

Dermal

LD50 Rat > 5000 mg/kg, 24 Hours, ECHA

Inhalation

LC50 Rat > 2.1 mg/L, 4 Hours, ECHA

Oral

LD50 Mouse 1100 mg/kg, Toxic and Hazardous

Industrial Chemicals Safety Manual. Tokyo,

Japan

Rat 5150 mg/kg, ECHA

3400 mg/kg, ECHA

1.1 g/kg, HSDB

Skin corrosion/irritation Causes severe skin burns and eye damage.

Exposure minutesNot available.Erythema valueNot available.Oedema valueNot available.

Serious eye damage/eye

Iris lesion value

Corneal opacity value

irritation

Causes serious eye damage.

Not available. Not available.

Conjunctival reddening value

Not available.

Conjunctival oedema valueNot available.Recover daysNot available.

Respiratory or skin sensitization

Canada - Alberta OELs: Irritant

Potassium hydroxide (CAS 1310-58-3) Irritant

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

 Mutagenicity
 Non-hazardous by WHMIS/OSHA criteria.

 Carcinogenicity
 Non-hazardous by WHMIS/OSHA criteria.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Teratogenicity Non-hazardous by WHMIS/OSHA criteria.

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns. See

below

Ecotoxicological data

Components Species Test Results

Potassium hydroxide (CAS 1310-58-3)

Aquatic

Fish LC50 Western mosquitofish (Gambusia affinis) 80 mg/L, 96 hours

Silicic acid, sodium salt (CAS 1344-09-8)

Aquatic

Crustacea EC50 Water flea (Ceriodaphnia dubia) 0.28 - 0.57 mg/L, 48 hours

Fish LC50 Western mosquitofish (Gambusia affinis) 1800 mg/L, 96 hours

Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potentialNo data available.Mobility in soilNo data available.Mobility in generalNot available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal instructionsCollect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of

contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport Information

Transport of Dangerous Goods (TDG) Proof of Classification

Classification Method: Classified as per Part 2, Sections 2.1 - 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number UN3266

Proper shipping name Corrosive liquid, basic, inorganic, n.o.s.

Technical name Potassium hydroxide

Hazard class 8
Packing group ||

Special provisions 386, B2, IB2, T11, TP2, TP27

Packaging exceptions154Packaging non bulk202Packaging bulk242

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number UN3266

Proper shipping name CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.

Technical name Potassium hydroxide

Hazard class 8
Packing group II
Special provisions 16



TDG



15. Regulatory Information

Canadian federal regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS 2015 Exemptions

Not applicable

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

All chemicals used are on the TSCA inventory.

CERCLA Hazardous Substance List (40 CFR 302.4)

Potassium hydroxide (CAS 1310-58-3)

Listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely No

hazardous substance

SARA 311/312 Hazardous

No

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Water Act (CWA)

Section 112(r) (40 CFR

68.130)

Hazardous substance

US state regulations

US - California Hazardous Substances (Director's): Listed substance

Potassium hydroxide (CAS 1310-58-3) Listed.

US - Illinois Chemical Safety Act: Listed substance

Potassium hydroxide (CAS 1310-58-3)

US - Louisiana Spill Reporting: Listed substance

Potassium hydroxide (CAS 1310-58-3) Listed.

US - Minnesota Haz Subs: Listed substance

Potassium hydroxide (CAS 1310-58-3) Listed.

US - New Jersey RTK - Substances: Listed substance

Potassium hydroxide (CAS 1310-58-3)

US - Texas Effects Screening Levels: Listed substance

Amines, C10-16 alkyldimethyl, N-oxides (CAS Listed. 70592-80-2)

Glucopyranose, oligomeric, decyl octyl glycosides (CAS Listed.

68515-73-1)

Potassium carbonate (CAS 584-08-7) Listed.
Potassium hydroxide (CAS 1310-58-3) Listed.
Silicic acid, sodium salt (CAS 1344-09-8) Listed.

US. Massachusetts RTK - Substance List

Potassium hydroxide (CAS 1310-58-3)

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania Worker and Community Right-to-Know Law

Potassium hydroxide (CAS 1310-58-3)

US. Rhode Island RTK

Potassium hydroxide (CAS 1310-58-3)

US. California Proposition 65

Not Listed.

Inventory status

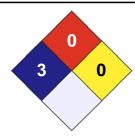
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information







Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document. The information in the sheet was written based on the best knowledge and experience currently available.

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Prepared by Dell Tech Laboratories, Ltd. Phone: (519) 858-5021

Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the

document.