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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP HEAVY DUTY FOAMING DEGREASER 20N18 12CT

Material number : CAHFD18

Manufacturer or supplier's details

Company : Zep Inc.

Address : 11627 - 178 Street

Edmonton, Alberta T5S 1N6

Canada

Telephone : Compliance Services - 877-428-9937

Emergency telephone numbers

For SDS Information : Compliance Services - 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

Recommended use of the chemical and restrictions on use

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

| Appearance | Aerosol containing a liquefied gas | |
|------------|------------------------------------|--|
| Colour | clear, light yellow | |
| Odour | characteristic | |

GHS Classification

Gases under pressure : Liquefied gas
Eye irritation : Category 2A
Skin sensitisation : Sub-category 1B

GHS label elements

Hazard pictograms :





Signal word : Warning

Hazard statements : H280 Contains gas under pressure; may explode if heated.

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H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

Precautionary statements

: Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of

the workplace.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P333 + P313 If skin irritation or rash occurs: Get medical

advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/

attention.

P362 + P364 Take off contaminated clothing and wash it before

reuse.
Storage:

P410 + P403 Protect from sunlight. Store in a well-ventilated

place. Disposal:

P501 Dispose of contents/container in accordance with local

regulation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

| Chemical name | CAS-No. | Concentration [%] |
|--------------------------------|------------|-------------------|
| butane | 106-97-8 | >= 1 - < 5 |
| 2-(2-butoxyethoxy)ethanol | 112-34-5 | >= 1 - < 5 |
| Alcohols, C9-11, ethoxylated | 68439-46-3 | >= 1 - < 5 |
| d-limonene | 5989-27-5 | >= 1 - < 5 |
| sodium dodecylbenzenesulfonate | 25155-30-0 | >= 1 - < 5 |
| propane | 74-98-6 | >= 1 - < 5 |

SECTION 4. FIRST AID MEASURES

General advice : Do not leave the victim unattended.

Get medical attention immediately.

Show this safety data sheet to the doctor in attendance.

Move out of dangerous area.

If 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.

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Wash off immediately with plenty of water for at least 15

minutes.

Wash contaminated clothing before reuse. Remove contaminated clothing and shoes.

In case of eye contact : Remove contact lenses.

Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

Rinse immediately with plenty of water, also under the eyelids,

for at least 15 minutes.

If swallowed : Keep respiratory tract clear.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

DO NOT induce vomiting unless directed to do so by a

physician or poison control center.

Most important symptoms and effects, both acute and

delayed

: Effects are immediate and delayed.

Symptoms may include blistering, irritation, burns, and pain. Effects are dependent on exposure (dose, concentration,

contact time).

Causes serious eye damage.

Causes skin irritation.

Review section 2 of SDS to see all potential hazards.

Notes to physician : Treat symptomatically. Symptoms may be delayed.

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

products

: Carbon dioxide (CO2)

Carbon monoxide

Smoke

Sulphur oxides

Specific extinguishing

methods

: Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Further information : Standard procedure for chemical fires.

Special protective equipment

for firefighters

: Wear self-contained breathing apparatus for firefighting if

necessary.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.

Ensure adequate ventilation. Remove all sources of ignition.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Evacuate personnel to safe areas.

Environmental precautions : Prevent further leakage or spillage if safe to do so.

Prevent product from entering drains.

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 : For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Always replace cap after use.

Do not breathe vapours or spray mist. Avoid contact with skin and eyes.

Take precautionary measures against static discharges. Avoid exposure - obtain special instructions before use. Dispose of rinse water in accordance with local and national

regulations.

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun

exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or

red-hot objects. No smoking.

Observe label precautions.

Keep in a dry, cool and well-ventilated place.

Electrical installations / working materials must comply with

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 |
|------------|----------|-------------------------------------|--|-----------|
| butane | 106-97-8 | TWA | 1,000 ppm | CA AB OEL |

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| | | TWA | 600 ppm | CA BC OEL |
|---------------------------|----------|---|--------------------------|-----------|
| | | STEL | 750 ppm | CA BC OEL |
| | | TWAEV | 800 ppm 1,900 mg/m3 | CA QC OEL |
| | | STEL | 1,000 ppm | ACGIH |
| 2-(2-butoxyethoxy)ethanol | 112-34-5 | TWA (Inhalable fraction and vapor) | 10 ppm | ACGIH |
| propane | 74-98-6 | TWA | 1,000 ppm | CA AB OEL |
| | | TWA | 1,000 ppm | CA BC OEL |
| | | TWAEV | 1,000 ppm 1,800 mg/m3 | CA QC OEL |
| | | TWA | 1,000 ppm | CA ON OEL |

Engineering measures : effective ventilation in all processing areas

Personal protective equipment

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

Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Eye protection : Tightly fitting safety goggles

Access to clean water to rinse eyes must be available, options include: eye wash stations or showers, or eye wash bottles

with pure water.

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 : Wash hands before breaks and at the end of workday.

When using do not eat, drink or smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Aerosol containing a liquefied gas

Colour : clear, light yellow
Odour : characteristic
Odour Threshold : No data available
pH : No data available
Melting point/freezing point : No data available
Boiling point : not determined

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Flash point

Not applicable

Evaporation rate : not determined

Flammability (solid, gas,

liquid)

: The product is not flammable.

Upper explosion limit : No data available
Lower explosion limit : No data available
Vapour pressure : not determined

Relative vapour density : No data available

Density : 1.004 g/cm3

Solubility(ies)

Water solubility : not determined
Partition coefficient: n- : No data available

octanol/water

Auto-ignition temperature : not determined

Thermal decomposition : No data available

Viscosity

Viscosity, kinematic : No data available

Heat of combustion : < 20 kJ/g

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable

Chemical stability : Stable under normal conditions.

Possibility of hazardous

reactions

: Vapours may form explosive mixture with air.

No decomposition if stored and applied as directed.

Conditions to avoid : Heat, flames and sparks.

Extremes of temperature and direct sunlight.

Incompatible materials : Oxidizing agents

Hazardous decomposition

products

: Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical

Condition

: None known.

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Symptoms of Overexposure : Effects are immediate and delayed.

Symptoms may include blistering, irritation, burns, and pain. Effects are dependent on exposure (dose, concentration,

contact time).

Causes serious eye damage.

Causes skin irritation.

Review section 2 of SDS to see all potential hazards. Treat symptomatically. Symptoms may be delayed.

Carcinogenicity:

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.

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg

Method: Calculation method

Components:

Alcohols, C9-11, ethoxylated:

Acute oral toxicity : LD50 Oral Rat: 1,400 mg/kg

d-limonene:

Acute oral toxicity : LD50 Oral Rat: 4,400 mg/kg

Acute dermal toxicity : LD50 Dermal Rabbit: > 5,000 mg/kg

sodium dodecylbenzenesulfonate:

Acute oral toxicity : LD50 Oral Rat: 438 mg/kg

Skin corrosion/irritation

Product:

Remarks: Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

Product:

Remarks: Causes sensitisation.

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Components:

d-limonene:

Classification: May cause sensitisation by skin contact.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

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

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Partition coefficient: n- : Remarks: No data available

octanol/water Components:

butane:

Partition coefficient: n-: Pow: 2.89

octanol/water

2-(2-butoxyethoxy)ethanol:

Partition coefficient: n-: Pow: 1

octanol/water d-limonene:

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Partition coefficient: n-

octanol/water

: log Pow: 4.232

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Additional ecological

information

: No data available

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.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation (TDG) / Règlement Pour Le Transport (TMD): (Canada): UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation / Règlement Pour Le Transport: IMDG (Vessel): UN1950, AEROSOLS, 2.2, - Limited quantity

Transportation Regulation / Règlement Pour Le Transport: IATA (Cargo Air): UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation / Règlement Pour Le Transport: IATA (Passenger Air): UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation / Règlement Pour Le Transport: 49 CFR (USA): UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

The product as delivered to the customer conforms to packaging requirements for shipment by road under Transport Dangerous Goods (TDG) Canada regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

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SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR.

The components of this product are reported in the following inventories:

DSL This product contains one or more components that are listed on the

Canadian NDSL. All other components are on the Canadian DSL.

TSCA On TSCA Inventory

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION

WHMIS - GHS Label Information:

Hazard pictograms



Exclamation

Gas cylinder

mark

Signal word

Warning: Hazard statements

Contains gas under pressure; may explode if heated. May cause an allergic skin

reaction. Causes serious eye irritation.

Precautionary statements

Prevention: Avoid breathing dust/fume/gas/mist/vapours/spray. Wash skin thoroughly after handling. Contaminated work clothing should not be allow ed out of the w orkplace. Wear protective gloves/ eye protection/ face protection.

Response: IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with w ater 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 wash it before reuse.

Storage: Protect from sunlight. Store in a well-ventilated place.

Disposal: Dispose of contents/container in accordance with local regulation.

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|----------------|------------|
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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

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document applies to this specific material as supplied. It may not be valid for this material if it 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.