

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet
Issue Date: 6-Nov-2007
NA477ECP

CHEMWATCH 4686-76
Version No:2.0
CD 2008/3 Page 1 of 13

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

AEROSOL SPECIALTIES CLEANER

STATEMENT OF HAZARDOUS NATURE

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

OTHER NAMES

GP3, "General Purpose Cleaner"

PROPER SHIPPING NAME

AEROSOLS

PRODUCT USE

» Application is by spray atomisation from a hand held aerosol pack.
All-purpose cleaner.

SUPPLIER

Company: Pro- Sales Direct Ltd

Address:

Suite G, 1 Kingdon Street

Newmarket

Auckland

New Zealand

Telephone: +64 9 520 1900

Fax: +64 9 520 1905

Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Acute Aquatic Hazard Category 3

Acute Toxicity (Oral) Category 5

Eye Irritation Category 2A

Eye Irritation Category 2B

Flammable Aerosol Category 1

Reproductive Toxicity Category 1B

Respiratory Irritation Category 3

Skin Corrosion/Irritation Category 3

EMERGENCY OVERVIEW

HAZARD

DANGER

Determined by Chemwatch using GHS/HSNO criteria:

6.3B 6.4A 2.1.2A 6.1E 6.3B 6.4A 9.1C 6.8A

Causes mild skin irritation

Causes eye irritation

May cause respiratory irritation

Extremely flammable aerosol

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 2 of 13

Section 2 - HAZARDS IDENTIFICATION

May be harmful if swallowed
Causes mild skin irritation
Causes serious eye irritation
Harmful to aquatic life

May damage the unborn child

PRECAUTIONARY STATEMENTS

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
Use personal protective equipment as required.

Response

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/ attention.
Call a POISON CENTER or doctor/physician if you feel unwell.
If skin irritation occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/attention.

Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
ethylene glycol monobutyl ether	111-76-2	5
ingredients nonhazardous proprietary		>60
hydrocarbon propellant	68476-85-7.	4

Section 4 - FIRST AID MEASURES

NEW ZEALAND POISONS INFORMATION CENTRE 0800 POISON (0800 764 766)
NZ EMERGENCY SERVICES: 111

SWALLOWED

- » Not considered a normal route of entry.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness;

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 3 of 13

Section 4 - FIRST AID MEASURES

i.e. becoming unconscious.

- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

EYE

» If aerosols come in contact with the eyes:

- Immediately hold the eyelids apart and flush the eye 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.
- 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 solids or aerosol mists are deposited upon the skin:

- Flush skin and hair with running water (and soap if available).
- Remove any adhering solids with industrial skin cleansing cream.
- DO NOT use solvents.
- Seek medical attention in the event of irritation.

INHALED

» If aerosols, fumes or combustion products are inhaled:

- Remove to fresh air.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

» Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

» SMALL FIRE:

- Water spray, dry chemical or CO2

LARGE FIRE:

- Water spray or fog.

FIRE FIGHTING

- » - Alert Fire Brigade and tell them location and nature of hazard.
 - May be violently or explosively reactive.
 - Wear breathing apparatus plus protective gloves.
 - Prevent, by any means available, spillage from entering drains or water course.
 - If safe, switch off electrical equipment until vapour fire hazard removed.
 - Use water delivered as a fine spray to control fire and cool adjacent area.
 - DO NOT approach containers suspected to be hot.
 - Cool fire exposed containers with water spray from a protected location.
 - If safe to do so, remove containers from path of fire.
 - Equipment should be thoroughly decontaminated after use.
- When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 100 metres in all directions.

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 4 of 13

Section 5 - FIRE FIGHTING MEASURES

FIRE/EXPLOSION HAZARD

- » - Non combustible.
- Not considered to be a significant fire risk.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- Aerosol cans may explode on exposure to naked flames.
- Rupturing containers may rocket and scatter burning materials.
- Hazards may not be restricted to pressure effects.
- May emit acrid, poisonous or corrosive fumes.
- Decomposes on heating and may emit toxic fumes of carbon monoxide (CO).

Decomposition may produce toxic fumes of: carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.

FIRE INCOMPATIBILITY

- » None known.

Personal Protective Equipment

Gas tight chemical resistant suit.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- » - Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Wear protective clothing, impervious gloves and safety glasses.
- Shut off all possible sources of ignition and increase ventilation.
- Wipe up.
- If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.

MAJOR SPILLS

- » - Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse / absorb vapour.
- Absorb or cover spill with sand, earth, inert materials or vermiculite.
- If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.
- Collect residues and seal in labelled drums for disposal.

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.

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 5 of 13

Section 7 - HANDLING AND STORAGE

- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- DO NOT incinerate or puncture aerosol cans.
- DO NOT spray directly on humans, exposed food or food utensils.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

- » - Aerosol dispenser.
- Check that containers are clearly labelled.

STORAGE INCOMPATIBILITY

- » None known.

STORAGE REQUIREMENTS

- » - Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can.
- Store in original containers.
- Store in an upright position.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- No smoking, naked lights, heat or ignition sources.
- Keep containers securely sealed.
- Contents under pressure.
- Store in a cool, dry, well ventilated area; away from incompatible materials.
- Avoid storage at temperatures higher than 40 deg C.
- Protect containers against physical damage.
- Check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³
New Zealand Workplace Exposure Standards (WES)	ethylene glycol monobutyl ether (2- Butoxyethanol)	25	121
New Zealand Workplace Exposure Standards (WES)	hydrocarbon propellant (LPG (Liquefied petroleum gas))	1, 000	1, 800

EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m ³)	Revised IDLH Value (ppm)
ethylene glycol monobutyl ether		700 [Unch]
hydrocarbon propellant		2, 000 [LEL]

NOTES

Values marked LEL indicate that the IDLH was based on 10% of the lower explosive limit

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 6 of 13

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

for safety considerations even though the relevant toxicological data indicated that irreversible health effects or impairment of escape existed only at higher concentrations.

MATERIAL DATA

» Not available. Refer to individual constituents.

INGREDIENT DATA

ETHYLENE GLYCOL MONOBUTYL ETHER:

Odour Threshold Value: 0.10 ppm (detection), 0.35 ppm (recognition)

Although rats appear to be more susceptible than other animals anaemia is not uncommon amongst humans following exposure. The TLV reflects the need to maintain exposures below levels found to cause blood changes in experimental animals. It is concluded that this limit will reduce the significant risk of irritation, haematologic effects and other systemic effects observed in humans and animals exposed to higher vapour concentrations. The toxic effects typical of some other glycol ethers (pancytopenia, testis atrophy and teratogenic effects) are not found with this substance.

PERSONAL PROTECTION

EYE

» No special equipment for minor exposure i.e. when handling small quantities. OTHERWISE:

For potentially moderate or heavy exposures:

- Safety glasses with side shields.

- NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.

HANDS/FEET

» - No special equipment needed when handling small quantities.

- OTHERWISE:

- For potentially moderate exposures:

- Wear general protective gloves, eg. light weight rubber gloves.

- For potentially heavy exposures:

- Wear chemical protective gloves, eg. PVC. and safety footwear.

OTHER

» No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.

- Skin cleansing cream.

- Eyewash unit.

- Do not spray on hot surfaces.

RESPIRATOR

» Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half- face Respirator	Full- Face Respirator
1000	10	AX- AUS	-
1000	50	-	AX- AUS
5000	50	Airline *	-
5000	100	-	AX- 2
10000	100	-	AX- 3

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 7 of 13

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

100+

Airline**

* - Continuous Flow

** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

» General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

» Supplied as an aerosol pack. Contents under PRESSURE. Contains highly flammable hydrocarbon propellant.
Clear liquid with sweet odour; mixes with water.

PHYSICAL PROPERTIES

Liquid.

Gas.

Mixes with water.

Molecular Weight: Not Applicable

Melting Range (°C): Not Available

Solubility in water (g/L): Miscible

pH (1% solution): Not Available

Volatile Component (%vol): 99

Relative Vapour Density (air=1): >1

Lower Explosive Limit (%): 1.1 propellant

Autoignition Temp (°C): Not Available

State: Liquid

Boiling Range (°C): <- 18 to 172

Specific Gravity (water= 1): 0.96

pH (as supplied): 11.4

Vapour Pressure (kPa): Not Available

Evaporation Rate: >1 Ether = 1

Flash Point (°C): - 87 propellant

Upper Explosive Limit (%): 10.6 propellant

Decomposition Temp (°C): Not Available

Viscosity: Not Available

Material

ETHYLENE GLYCOL MONOBUTYL ETHER:

log Kow

Value

0.76- 0.83

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

» - Elevated temperatures.

- Presence of open flame.

- Product is considered stable.

- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 8 of 13

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

» Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g 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.

» Not normally a hazard due to physical form of product.

» Ingestion may result in nausea, abdominal irritation, pain and vomiting.

EYE

» Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

» 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 is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

» The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

INHALED

» The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

» Mist may be an irritant.

» Acute effects from inhalation of high vapour concentrations may be chest and nasal irritation with coughing, sneezing, headache and even nausea.

» WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.

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.

ETHYLENE GLYCOL MONOBUTYL ETHER:

» unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

IRRITATION

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 9 of 13

Section 11 - TOXICOLOGICAL INFORMATION

Oral (rat) LD50: 470 mg/kg
Dermal (rabbit) LD50: 220 mg/kg
Inhalation (human) TClO: 100 ppm
Inhalation (human) TClO: 195 ppm/8h * [Union Carbide]

Skin (rabbit): 500 mg, open; Mild
Eye (rabbit): 100 mg/24h- Moderate
Eye (rabbit): 100 mg SEVERE

Inhalation (rat- male) LC50: 486 ppm *
Inhalation (rat- female) LC50: 450 ppm *

» The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

NOTE: Changes in kidney, liver, spleen and lungs are observed in animals exposed to high concentrations of this substance by all routes.

HYDROCARBON PROPELLANT:

» Not available. Refer to individual constituents.

CARCINOGEN

ethylene glycol monobutyl ether	International Agency for Research on Cancer (IARC) Carcinogens	Group	3
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SKIN

ethylene glycol monobutyl ether	New Zealand Workplace Exposure Standards (WES) - Skin	Notes	Skin
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Section 12 - ECOLOGICAL INFORMATION

Marine Pollutant: Not Determined

» DO NOT discharge into sewer or waterways.
Refer to data for ingredients, which follows:

ETHYLENE GLYCOL MONOBUTYL ETHER:

» Fish LC50 (96hr.) (mg/l):	1490
» BCF<100:	0.4
» log Kow (Prager 1995):	0.83
» log Kow (Sangster 1997):	0.8
» Half- life Soil - High (hours):	672
» Half- life Soil - Low (hours):	168
» Half- life Air - High (hours):	32.8
» Half- life Air - Low (hours):	3.28
» Half- life Surface water - High (hours):	672
» Half- life Surface water - Low (hours):	168
» Half- life Ground water - High (hours):	1344
» Half- life Ground water - Low (hours):	336
» Aqueous biodegradation - Aerobic - High (hours):	672
» Aqueous biodegradation - Aerobic - Low (hours):	168
» Aqueous biodegradation - Anaerobic - High (hours):	2688
» Aqueous biodegradation - Anaerobic - Low (hours):	672
» Photooxidation half- life air - High (hours):	32.8
» Photooxidation half- life air - Low (hours):	3.28
» Fish LC50 (96hr.) (mg/l):	1250- 1650
» Daphnia magna EC50 (48hr.) (mg/l):	600- 1000

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 10 of 13

Section 12 - ECOLOGICAL INFORMATION

» DO NOT discharge into sewer or waterways.

log Kow: 0.76-0.83

Koc: 67

Half-life (hr) air: 17

Henry's atm m³/mol: 2.08E-08

BOD 5 if unstated: 0.71

COD: 2.2

Log BCF: 0.4

Fish toxicity:

(-) 24h LD50: 983-1650 mg/L

(Fathead minnow) 96h LC50: 1700 mg/L **

Invertebrate toxicity:

cell mult. inhib.91-900mg/L

(Daphnia) 48h LC50: >1000 mg/L **

Bioaccumulation: not sig

Effects on algae and plankton: cell mult. inhib.35-900mg/L

Degradation Biological: rapid

processes Abiotic: no hydrol&photol,RxnOH*

** [Union Carbide]

HYDROCARBON PROPELLANT:

Marine Pollutant: Not Determined

» For hydrocarbons:

Environmental fate:

The lower molecular weight hydrocarbons are expected to form a "slick" on the surface of waters after release in calm sea conditions. This is expected to evaporate and enter the atmosphere where it will be degraded through reaction with hydroxy radicals.

Some hydrocarbon will become associated with benthic sediments, and it is likely to be spread over a fairly wide area of sea floor. Marine sediments may be either aerobic or anaerobic. The material, in probability, is biodegradable, under aerobic conditions (isomerised olefins and alkenes show variable results). Evidence also suggests that the hydrocarbons may be degradable under anaerobic conditions although such degradation in benthic sediments may be a relatively slow process.

Under aerobic conditions hydrocarbons degrade to water and carbon dioxide, while under anaerobic processes they produce water, methane and carbon dioxide.

Alkenes have low log octanol/water partition coefficients (Kow) of about 1 and estimated bioconcentration factors (BCF) of about 10; aromatics have intermediate values (log Kow values of 2-3 and BCF values of 20-200), while C5 and greater alkanes have fairly high values (log Kow values of about 3-4.5 and BCF values of 100-1,500

The estimated volatilisation half-lives for alkanes and benzene, toluene, ethylbenzene, xylene (BTEX) components were predicted as 7 days in ponds, 1.5 days in rivers, and 6 days in lakes. The volatilisation rate of naphthalene and its substituted derivatives were estimated to be slower

Indigenous microbes found in many natural settings (e.g., soils, groundwater, ponds) have been shown to be capable of degrading organic compounds. Unlike other fate processes that disperse contaminants in the environment, biodegradation can eliminate the contaminants without transferring them across media.

The final products of microbial degradation are carbon dioxide, water, and microbial biomass. The rate of hydrocarbon degradation depends on the chemical composition of the product released to the environment as well as site-specific environmental factors. Generally the straight chain hydrocarbons and the aromatics are degraded more readily than the highly branched aliphatic compounds. The n-alkanes, n-alkyl aromatics, and the aromatics in the C10-C22 range are the most readily biodegradable; n-alkanes, n-alkyl aromatics, and aromatics in the C5-C9 range are biodegradable at low concentrations by some microorganisms, but are generally preferentially removed by volatilisation and thus are unavailable in most environments; n-alkanes in the C1-C4 ranges are biodegradable only by a narrow range of specialised hydrocarbon degraders; and n-alkanes, n-alkyl aromatics, and aromatics above C22 are generally not available to degrading microorganisms. Hydrocarbons with condensed ring structures, such as PAHs with four or more rings, have been shown to be relatively resistant to biodegradation. PAHs with only 2 or 3 rings (e.g., naphthalene, anthracene) are more easily biodegraded. In almost all cases, the presence of oxygen is essential for effective biodegradation of oil. The ideal pH range to promote biodegradation is close to neutral (6-8).

For most species, the optimal pH is slightly alkaline, that is, greater than 7.

All biological transformations are affected by temperature. Generally, as the temperature increases,

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 11 of 13

Section 12 - ECOLOGICAL INFORMATION

biological activity tends to increase up to a temperature where enzyme denaturation occurs.

Atmospheric fate: Alkanes, isoalkanes, and cycloalkanes have half-lives on the order of 1-10 days, whereas alkenes, cycloalkenes, and substituted benzenes have half-lives of 1 day or less. Photochemical oxidation products include aldehydes, hydroxy compounds, nitro compounds, and peroxyacyl nitrates. Alkenes, certain substituted aromatics, and naphthalene are potentially susceptible to direct photolysis.

Ecotoxicity:

Based on test results, as well as theoretical considerations, the potential for bioaccumulation may be high. Toxic effects are often observed in species such as blue mussel, daphnia, freshwater green algae, marine copepods and amphipods.

The values of log Kow for individual hydrocarbons increase with increasing carbon number within homologous series of generic types. Quantitative structure activity relationships (QSAR), relating log Kow values of single hydrocarbons to toxicity, show that water solubility decreases more rapidly with increasing Kow than does the concentration causing effects. This relationship varies somewhat with species of hydrocarbon, but it follows that there is a log Kow limit for hydrocarbons, above which, they will not exhibit acute toxicity; this limit is at a log Kow value of about 4 to 5. It has been confirmed experimentally that for fish and invertebrates, paraffinic hydrocarbons with a carbon number of 10 or higher (log Kow >5) show no acute toxicity and that alkylbenzenes with a carbon number of 14 or greater (log Kow >5) similarly show no acute toxicity. QSAR equations for chronic toxicity also suggest that there should be a point where hydrocarbons with high log Kow values become so insoluble in water that they will not cause chronic toxicity, that is, that there is also a solubility cut-off for chronic toxicity. Thus, paraffinic hydrocarbons with carbon numbers of greater than 14 (log Kow >7.3) should show no measurable chronic toxicity.

» Drinking Water Standards: hydrocarbon total: 10 ug/l (UK max.).

» DO NOT discharge into sewer or waterways.

Section 13 - DISPOSAL CONSIDERATIONS

- » - Consult State Land Waste Management Authority for disposal.
- Discharge contents of damaged aerosol cans at an approved site.
- Allow small quantities to evaporate.
- DO NOT incinerate or puncture aerosol cans.
- Bury residues and emptied aerosol cans at an approved site.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: NON-FLAMMABLE COMPRESSED GAS

HAZCHEM: (1) Not applicable to the carriage of dangerous goods under RID or ADR

UNDG:

Dangerous Goods 2.2 Subrisk: None

Class:

UN Number: 1950 Packing Group: None

Shipping Name: AEROSOLS

Air Transport IATA:

ICAO/IATA Class: 2.2 ICAO/IATA Subrisk: None

UN/ID Number: 1950 Packing Group: None

Special provisions: A98 A145 A153

Shipping Name: AEROSOLS, NON-FLAMMABLE

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 12 of 13

Section 14 - TRANSPORTATION INFORMATION

Maritime Transport IMDG:

IMDG Class:	2.2	IMDG Subrisk:	SP63
UN Number:	1950	Packing Group:	None
EMS Number:	F- D, S- U	Special provisions:	63 190 277 327 959
Limited Quantities:	See SP277	Marine Pollutant:	Not Determined
Shipping Name:	AEROSOLS		

Section 15 - REGULATORY INFORMATION

REGULATIONS

Aerosol Specialties Cleaner (CAS: None):

No regulations applicable

ethylene glycol monobutyl ether (CAS: 111-76-2) is found on the following regulatory lists;
GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships
IMO IBC Code Chapter 17: Summary of minimum requirements
IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
International Agency for Research on Cancer (IARC) Carcinogens
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Hazardous Substances Register
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Poisons Schedule [NLV] - S3
New Zealand Workplace Exposure Standards (WES)
OECD Representative List of High Production Volume (HPV) Chemicals

hydrocarbon propellant (CAS: 68476-85-7) is found on the following regulatory lists;
International Air Transport Association (IATA) Dangerous Goods Regulations
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Hazardous Substances Register
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)
OECD Representative List of High Production Volume (HPV) Chemicals
hydrocarbon propellant (CAS: 68476-86-8) is found on the following regulatory lists;
International Air Transport Association (IATA) Dangerous Goods Regulations
New Zealand Inventory of Chemicals (NZIoC)
OECD Representative List of High Production Volume (HPV) Chemicals

Specific advice on controls required for materials used in New Zealand can be found at
<http://www.ermanz.govt.nz/search/registers.html>

Section 16 - OTHER INFORMATION

NEW ZEALAND POISONS INFORMATION CENTRE

0800 POISON (0800 764 766)

NZ EMERGENCY SERVICES: 111

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
hydrocarbon	68476- 85- 7, 68476- 86- 8
propellant	

REPRODUCTIVE HEALTH GUIDELINES

Ingredient	ORG	UF	Endpoint	CR	Adeq TLV
ethylene glycol monobutyl ether	3.6 mg/m3	100	D	NA	-

» These exposure guidelines have been derived from a screening level of risk assessment and should not be construed as unequivocally safe limits. ORGS represent an 8-hour time-weighted average unless specified otherwise.

CR = Cancer Risk/10000; UF = Uncertainty factor:

TLV believed to be adequate to protect reproductive health:

continued...

AEROSOL SPECIALTIES CLEANER

Chemwatch Material Safety Data Sheet

Issue Date: 6-Nov-2007

NA477ECP

CHEMWATCH 4686-76

Version No:2.0

CD 2008/3 Page 13 of 13

Section 16 - OTHER INFORMATION

LOD: Limit of detection

Toxic endpoints have also been identified as:

D = Developmental; R = Reproductive; TC = Transplacental carcinogen

Jankovic J., Drake F.: A Screening Method for Occupational Reproductive

American Industrial Hygiene Association Journal 57: 641-649 (1996).

» 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.

» 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. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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