

CRC 8200, 8202, 8204, 8206, 8208 SOLVENT N (NZ)

ChemWatch Material Safety Data Sheet

CHEMWATCH 4586-1

Date of Issue: Mon 24-Jul-2000

IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS ACCORDING TO WORKSAFE AUSTRALIA CRITERIA

SUPPLIER

Company: CRC Industries New Zealand Ltd
Address:
PO Box 58-121 10 Waiouru Road
Greenmount East Tamaki
Auckland Auckland
New Zealand New Zealand
Telephone: 64 9 274 5710
Fax: 64 9 274 9696

CHEMWATCH HAZARD RATINGS

Flammability: 4
Toxicity: 2
Body Contact: 2
Reactivity: 0
SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4

PERSONAL PROTECTIVE EQUIPMENT FOR INDUSTRIAL/COMMERCIAL ENVIRONMENTS

Short Gloves
Goggles
Overalls
Half Face Respirator

Product Name: CRC 8200, 8202, 8204, 8206, 8208 Solvent N
(NZ)
Other Names: Manufacturer's Code 8200, 8202, 8204,
8206, 8208

CAS RN No(s): None
UN Number: 1993
Dangerous Goods Class: 3(3.1)
Subsidiary Risk: None
Hazchem Code: 3[Y]E
Poisons Schedule Number: NZS3

USE

Thinning and cleaning polychloroprene contact adhesives.
The use of a quantity of material in an unventilated or confined space
may result in increased exposure and an irritating atmosphere
developing
Before starting consider control of exposure by mechanical ventilation.

PHYSICAL DESCRIPTION/PROPERTIES

APPEARANCE

Clear, highly flammable liquid with strong solvent odour; floats on
water.

Boiling Point (deg C): 54
Melting Point (deg C): Not available
Vapour Pressure (kPa): 13.3 @ 20 C

Specific Gravity: 0.755-0.765
Flash Point (deg C): -15
Lower Explosive Limit (%): 1
Upper Explosive Limit (%): 7
Solubility in Water (g/L): Partly miscible

INGREDIENTS

NAME	CAS RN	%
naphtha petroleum, light aliphatic solvent	64742-89-8	30-
60		
acetone	67-64-1	10-
30		
toluene	108-88-3	10-
30		

NOTE: Manufacturer has supplied full ingredient information to allow CHEMWATCH assessment.

HEALTH HAZARD

ACUTE HEALTH EFFECTS

SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments.
The liquid may produce gastrointestinal discomfort and may be harmful if swallowed. Ingestion may result in nausea, pain and vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis.

EYE

The liquid may produce eye discomfort and is capable of causing temporary

impairment of vision and / or transient eye inflammation, ulceration. The vapour is discomforting to the eyes. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

The liquid may produce skin discomfort following prolonged contact. Defatting and/ or drying of the skin may lead to dermatitis. Toxic effects may result from skin absorption. Open cuts, abraded or irritated skin should not be exposed to this material. The material may accentuate any pre-existing skin condition. 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 (oedema) which may progress to vesiculation, scaling and thickening of the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

INHALED

The vapour is highly discomforting to the upper respiratory tract. Inhalation hazard is increased at higher temperatures. Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordination. If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death. Inhalation of vapour may aggravate a pre-existing respiratory condition.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by inhalation of vapour and skin contact/absorption. Prolonged or continuous skin contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS].

FIRST AID

SWALLOWED

If poisoning occurs, contact a doctor or Poisons Information Centre.
In Australia phone 13 1126; New Zealand 03 4747000.
If swallowed, do NOT induce vomiting. Give a glass of water.

EYE

If this product comes in contact with the eyes:

- 1: Immediately hold the eyes open and wash continuously for at least 15 minutes with fresh running water.
- 2: 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.
- 3: Transport to hospital or doctor without delay.
- 4: Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If product comes in contact with the skin:

- 1: Immediately remove all contaminated clothing, including footwear (after rinsing with water).
- 2: Wash affected areas thoroughly with water (and soap if available).
- 3: Seek medical attention in event of irritation.

INHALED

- 1: If fumes or combustion products are inhaled: Remove to fresh air.
- 2: Lay patient down. Keep warm and rested.
- 3: 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.
- 4: Transport to hospital, or doctor.

ADVICE TO DOCTOR

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

1. Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
2. Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases ($pO_2 < 50$ mm Hg or $pCO_2 > 50$ mm Hg) should be intubated.
3. Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
4. A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
5. Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
6. Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients.
[Ellenhorn and Barceloux: Medical Toxicology].

PRECAUTIONS FOR USE

EXPOSURE STANDARDS

None assigned. Refer to individual constituents.

<naphtha petroleum, light aliphatic solvent>
REL TWA: 370 ppm
[SHELL]
for petroleum distillates:
CEL TWA: 500 ppm, 2000 mg/m³ (compare OSHA TWA).

<acetone>

TLV TWA: 500 ppm, 1188 mg/m³; STEL: 750 ppm, 1782 mg/m³ A4
ES TWA: 500 ppm, 1185 mg/m³; STEL: 1000 ppm, 2375 mg/m³
OES TWA: 750 ppm, 1810 mg/m³; STEL: 1500 ppm, 3620 mg/m³
NIOSH REL TWA: 250 ppm
MAK Value: 500 ppm, 1200 mg/m³
IDLH Level: 20000 ppm
MAK Category I Peak Limitation: For local irritants
Allows excursions of twice the MAK value for 5 minutes at a time,
8 times per shift.
MAK Group IIc: Substances with MAK Values but no pregnancy risk group
classification. These are substances which have been
investigated but for which no information regarding
possible damage to the foetus/ embryo was found.
Mention calls attention to the absence of adequate data.
Odour Threshold Value: 3.6 ppm (detection), 699 ppm (recognition)
Saturation vapour concentration: 237000 ppm @ 20 C
NOTE: Detector tubes measuring in excess of 40 ppm, are available.
Exposure at or below the recommended TLV-TWA is thought to protect the
worker against mild irritation associated with brief exposures and the
bioaccumulation, chronic irritation of the respiratory tract and
headaches
associated with long-term acetone exposures. The NIOSH REL-TWA is
substantially lower and has taken into account slight irritation
experienced by volunteer subjects at 300 ppm. Mild irritation to
acclimatised workers begins at about 750 ppm - unacclimatised subjects
will experience irritation at about 350-500 ppm but acclimatisation can
occur rapidly. Disagreement between the peak bodies is based largely on
the view by ACGIH that widespread use of acetone, without evidence of
significant adverse health effects at higher concentrations, allows
acceptance of a higher limit.
Half-life of acetone in blood is 3 hours which means that no adjustment
for shift-length has to be made with reference to the standard 8
hour/day,
40 hours per week because body clearance occurs within any shift with
low
potential for accumulation.
A STEL has been established to prevent excursions of acetone vapours
that
could cause depression of the central nervous system.

<toluene>

ES TWA: 100 ppm, 377 mg/m³; STEL: 150 ppm, 565 mg/m³ (Under review)
PROPOSED CHANGE
ES TWA 50 ppm, 188 mg/m³ SKIN
TLV TWA: 50 ppm, 188 mg/m³ SKIN A4
OES TWA: 50 ppm, 191 mg/m³; STEL: 150 ppm, 574 mg/m³ SKIN
MAK value: 50 ppm, 190 mg/m³
MAK Category II Peak Limitation: For substances with systemic effects
and with a half-life in humans ranging from two hours to shift-length.
Allows excursions of 5 times the MAK value, for 30 minutes (on
average),
twice per shift.
MAK Group C: There is no reason to fear risk of damage to the
developing
embryo when MAK and BAT values are observed.
IDLH Level: 2000 ppm
Odour Threshold Value: 0.16-6.7 (detection), 1.9-69 (recognition)

NOTE: Detector tubes measuring in excess of 5 ppm, are available. Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard. High concentrations of toluene in the air produce depression of the central nervous system (CNS) in humans. Intentional toluene exposure (glue-sniffing) at maternally-intoxicating concentration has also produced birth defects. Foetotoxicity appears at levels associated with CNS narcosis and probably occurs only in those with chronic toluene-induced kidney failure. Exposure at or below the recommended TLV-TWA is thought to prevent transient headache and irritation, to provide a measure of safety for possible disturbances to human reproduction, the prevention of reductions in cognitive responses reported amongst humans inhaling greater than 40 ppm, and the significant risks of hepatotoxic, behavioural and nervous system effects (including impaired reaction time and incoordination). Although toluene/ethanol interactions are well recognised, the degree of protection afforded by the TLV-TWA among drinkers is not known.

** for the following **

<acetone>

<toluene>

NOTE: This substance has been classified by the ACGIH as A4

NOT classifiable as causing Cancer in humans.

** for the following **

<acetone>

<toluene>

MAK values, and categories and groups are those recommended within the Federal Republic of Germany.

REPRODUCTIVE HEALTH GUIDELINES

Established occupational exposure limits frequently do not take into consideration reproductive end points that are clearly below the thresholds for other toxic effects. Occupational reproductive guidelines

(ORGs) have been suggested as an additional standard. These have been established after a literature search for reproductive no-observed-adverse

effect-level (NOAEL) and the lowest-observed-adverse-effect-level (LOAEL).

In addition the US EPA's procedures for risk assessment for hazard identification and dose-response assessment as applied by NIOSH were used

in the creation of such limits. Uncertainty factors (UFs) have also been incorporated.

:

:

ORG	UF	Endpoint	CR	TLV Adequate.
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<toluene>

9.6 mg/m3 10 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:

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 Health Risk:

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

ENGINEERING CONTROLS

CARE: Use of a quantity of this material in confined space or poorly ventilated area, where rapid build up of concentrated atmosphere may occur,

could require increased ventilation and/or protective gear.

Local exhaust ventilation usually required.

If risk of overexposure exists, wear approved respirator.

Correct fit is essential to obtain adequate protection.

Supplied-air type respirator may be required in special circumstances.

Correct fit is essential to ensure adequate protection.

An approved self contained breathing apparatus (SCBA) may be required in some situations.

Provide adequate ventilation in warehouse or closed storage area.

PERSONAL PROTECTION

EYE

Safety glasses with side shields; or as required, Chemical goggles.

Contact lenses pose a special hazard; soft lenses may absorb irritants and

all lenses concentrate them.

HANDS/FEET

Barrier cream with polyethylene gloves.

OTHER

1: Overalls.

2: Eyewash unit.

Ensure there is ready access to a safety shower.

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the

"Forsberg Protective Clothing Performance Index"

The effect of the following substance(s) is taken into account in the computer-generated selection.

Substance

acetone

toluene

Protective Material CPI*

PE/EVAL/PE	A
TEFLON	B
PVA	B
SARANEX-23 2-PLY	B
BUTYL/NEOPRENE	B
VITON	C
BUTYL	C
CPE	C
SARANEX-23	C
VITON/NEOPRENE	C
HYPALON	C
NITRILE+PVC	C
NEOPRENE	C
PVC	C
NITRILE	C
NATURAL RUBBER	C

CPI* :- Chemwatch Performance Index

A :- Best Selection

B :- Satisfactory; may degrade after 4 hours continuous immersion

C :- Poor to Dangerous Choice for other than short term immersion

Note: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation.

RESPIRATOR

Respiratory protection may be required when ANY "Worst Case" vapour-phase

concentration is exceeded (see Computer Prediction in "Exposure Standards").

Protection Factor (Min)	Half-Face Respirator	Full-Face Respirator	Spray/ Mist Spatter

5 x ES	AX -AUS AX -PAPR-AUS	-	AX -P-AUS AX -PAPR-P-AUS
25 x ES	Air-line*	AX -2 AX -PAPR-2	AX -P-2 ^ AX -PAPR-P-2 ^
50 x ES	-	AX -3	AX -P-3 ^
50+ x ES	-	Air-line**	Air-line** ^

* - Continuous-flow; ** - Continuous-flow or positive pressure demand
^ - Full-face.

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.

SAFE HANDLING

STORAGE AND TRANSPORT

SUITABLE CONTAINER

Metal can Metal drum Metal safety cans.
Packing as supplied by manufacturer.
Plastic containers may only be used if approved for flammable liquid.
Check that containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Avoid storage with oxidisers.

STORAGE REQUIREMENT

1: Store in original containers in approved flame-proof area.

- 2: No smoking, naked lights, heat or ignition sources.
- 3: DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- 4: Keep containers securely sealed.
- 5: Store away from incompatible materials in a cool, dry well ventilated area.
- 6: Protect containers against physical damage and check regularly for leaks.
- 7: Observe manufacturer's storing and handling recommendations.

TRANSPORTATION

- Class 3 - Flammable liquids shall not be loaded in the same vehicle or packed in the same freight container with:
- Class 1 - Explosives;
 - Class 2.1 - Flammable gases (where both flammable liquids and flammable gases are in bulk);
 - Class 2.3 - Poisonous gases;
 - Class 4.2 - Spontaneously combustible substances;
 - Class 5.1 - Oxidising agents;
 - Class 5.2 - Organic peroxides;
 - Class 7 - Radioactive substances.

SPILLS AND DISPOSAL

MINOR SPILLS

- 1: Remove all ignition sources.
- 2: Clean up all spills immediately.
- 3: Avoid breathing vapours and contact with skin and eyes.
- 4: Control personal contact by using protective equipment.
- 5: Contain and absorb small quantities with vermiculite or other absorbent material.
- 6: Wipe up.
- 7: Collect residues in a flammable waste container.

MAJOR SPILLS

- 1: Clear area of personnel and move upwind.
- 2: Alert Fire Brigade and tell them location and nature of hazard.
- 3: May be violently or explosively reactive.
- 4: Wear breathing apparatus plus protective gloves.
- 5: Prevent, by any means available, spillage from entering drains or

water course.

- 6: Consider evacuation (or protect in place).
- 7: No smoking, naked lights or ignition sources.
- 8: Increase ventilation.
- 9: Stop leak if safe to do so.
- 10: Water spray or fog may be used to disperse /absorb vapour.
- 11: Contain spill with sand, earth or vermiculite.
- 11: Use only spark-free shovels and explosion proof equipment.
- 12: Collect recoverable product into labelled containers for recycling.
- 13: Absorb remaining product with sand, earth or vermiculite.
- 14: Collect solid residues and seal in labelled drums for disposal.
- 15: Wash area and prevent runoff into drains.
- 16: If contamination of drains or waterways occurs, advise emergency services.

DISPOSAL

- 1: Consult manufacturer for recycling options and recycle where possible .
- 2: Consult State Land Waste Management Authority for disposal.
- 3: Incinerate residue at an approved site.
- 4: Recycle containers if possible, or dispose of in an authorised landfill.

FIRE/EXPLOSION HAZARD

- 1: Liquid and vapour are highly flammable.
 - 2: Severe fire hazard when exposed to heat, flame and/or oxidisers.
 - 3: Vapour forms an explosive mixture with air.
 - 4: Severe explosion hazard, in the form of vapour, when exposed to flame or spark.
 - 5: Vapour may travel a considerable distance to source of ignition.
 - 6: Heating may cause expansion / decomposition with violent rupture of containers.
 - 7: On combustion, may emit toxic fumes of carbon monoxide (CO).
- Other combustion products include carbon dioxide (CO₂).

CONTACT POINT

CONTACT

AUSTRALIAN POISONS INFORMATION CENTRE

24 HOUR SERVICE :- 13 11 26

POLICE OR FIRE BRIGADE :- 000 (exchange):-1100

NEW ZEALAND POISONS INFORMATION CENTRE

Dunedin :-(03)479 1200 (Normal Hours)

:- (03)474 0999 (Emergency)

End of Report

Date of Preparation: Mon 24-Jul-2000

Print Date: Wed 16-Aug-2000

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