

Nama produk: Product name: Polysolvan O(R)
Nombor MSDS: MSDS number: 196
Nombor bahan: Material number: 80196
Tarikh diterbitkan: Published 06/28/2004
date:

RISALAH DATA KESELAMATAN BAHAN MATERIAL SAFETY DATA SHEET

1. Pengenalan Produk dan Syarikat *1. Product and Company Identification*

Produk: Product: **Polysolvan O®** Polysolvan O®

Nombor MSDS: MSDS number: 196

Nombor bahan: Material number: 80196

Celanese Pte Ltd

501 Orchard Road
Wheelock Place #11-01
Singapore 238880
Tel No: (65) 67331767

Nombor telefon kecemasan pengangkutan:

+ (65) 66639259 (Operations Room direct dial)
+ (65) 62656917 (Operations Room direct dial)
+ (65) 62650177(Switchboard, ask for Operations Room)

or fax request to

+(65) 62644190 (Facsimile to Operations Room)
+(65) 62664696 (Facsimile to Operations Room)

or email to

opsroom@semco.psa.com.sg

or Call CHEMTREC 703 527 3887 (USA), collect calls accepted

"+" = International Dialing Access Code

Kecemasan pengangkutan:

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2. Komposisi/ Maklumat tentang Ramuan

2. Composition / Information on Ingredients

Komponen Component	No. CAS CAS Number	% Berat Percent %	Status kawalselia OSHA: OSHA hazard category:
Asid asetik, hidroksi-, butil ester BUTYL GLYCOLATE	7397-62-8	97	Berbahaya Hazardous

3. Pengenalan Bahaya

3. Hazards Identification

Gambaran Menyeluruh Kecemasan:

Emergency Overview:
AMARAN!

WARNING!

- **Menyebabkan kerengsaan trek pernafasan dan mata.**
Causes respiratory tract and eye irritation.
- **Boleh menyebabkan kerengsaan kulit.**
May cause skin irritation.

Perihalan produk

Product Description

Rupa:

Appearance:

Cecair tak berwarna.
Colorless liquid.

Bau:

Odor:

Bau seperti ester sedikit.
Slight ester-like odor.

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Kesan kesihatan yang berpotensi berlaku

Potential health effects

Laluan pendedahan:
Routes of exposure:**Kulit, mata, dihidu, ditelan.**
Skin, eyes, inhalation, ingestion.**Kesan serta merta**
Immediate effects:**Kulit:**
Skin:**Boleh menyebabkan kerengsaan kulit.**
May cause skin irritation.**Gejala pendedahan mungkin termasuk:** Symptoms of exposure may include:**kulit berkeping, bersisik, meleleh dan gatal.**
Crusting, scaling, weeping and itching of skin.**Mata:**
Eyes:**Pendedahan kepada wap dan cecair:** Exposure to vapors and liquid**menyebabkan kerengsaan mata.**
Causes eye irritation.**Gejala pendedahan mungkin termasuk:** Symptoms of exposure may include:**kerengsaan mata, rasa terbakar atau bisa mata, mata berair, dan/atau perubahan penglihatan**
Eye irritation, burning sensation, pain, watering, and/or change of vision.

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Dihidu:
Inhalation:

Menyebabkan menyebabkan kerengsaan trek pernafasan.
Causes respiratory tract irritation.

Memudaratkan jika dihidu.
Harmful if inhaled.

Gejala pendedahan mungkin termasuk: Symptoms of exposure may include:

depresi sistem saraf pusat berserta mual, pening, sakit kepala, stupor, perilaku tak selaras atau ganjil atau tidak sedar.

Central nervous system depression with nausea, dizziness, headache, stupor, uncoordinated or strange behavior or unconsciousness.

lelehan hidung, suara garau, batuk-batuk, sakit dada dan kesukaran bernafas.
Nasal discharge, hoarseness, coughing, chest pain and breathing difficulty.

Ditelan:
Ingestion:

Pada asasnya tidak toksik.
Essentially non-toxic.

Gejala pendedahan mungkin termasuk: Symptoms of exposure may include:

mual, muntah-muntah, hilang selera makan, kerengsaan gastrousus dan/atau diarea.

Nausea, vomiting, loss of appetite, gastrointestinal irritation and/or diarrhea.

radang mulut, tekak, esofagus dan/atau perut.

Inflammation of mouth, throat, esophagus and/or stomach.

Mutagenik:
Mutagenic:

Tidak menunjukkan potensi mutagenik dalam ujian Ames.
Does not show mutagenic potential in Ames test.

Tidak menunjukkan potensi mutagenik dalam kebanyakan ujian in vitro.
Does not show mutagenic potential in most in vitro tests.

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Kesan pada organ sasaran:
Target Organ Effects:

- **Pendedahan terlampau (pendadahan berpanjangan atau berulang kali) boleh menyebabkan:**
- Overexposure (prolonged or repeated exposure) may cause:

Depresi sistem saraf pusat
Central nervous system depression

Kerengsaan trek pernafasan
Irritation of the respiratory tract

Kerengsaan trek pencernaan
Irritation of the digestive tract

Kerengsaan setempat di bahagian yang terdedah
Local irritation at the site of exposure

Keadaan perubatan yang umumnya diketahui bertambah buruk oleh pendedahan:
Medical Conditions which may be Aggravated by Exposure:

Pendedahan yang banyak kepada bahan kimia ini boleh memberikan kesan buruk terhadap orang yang menghidap penyakit akut atau kronik pada organ-organ berikut:
Significant exposure to this chemical may adversely affect people with acute or chronic disease of the:

Saluran pernafasan
Respiratory Tract

Kulit
Skin

Mata
Eyes

Sistem saraf pusat
Central nervous system

Saluran pencernaan
Digestive tract

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Bagi mendapatkan maklumat lanjut, lihat:

For further information, see:

Bahagian 4 - Langkah-Langkah Pertolongan Cemas
Bahagian 5 - Langkah-Langkah Memadam Kebakaran
Bahagian 6 - Langkah-Langkah Pembebasan Tidak Sengaja
Bahagian 8 - Kawalan Pendedahan / Perlindungan Diri
Bahagian 9 - Sifat-Sifat Fizikal dan Kimia
Bahagian 10 - Kestabilan dan Kereaktifan

Section 4 - First Aid Measures
Section 5 - Fire Fighting Measures
Section 6 - Accidental Release Measures
Section 8 - Exposure Controls/Personal Protection
Section 9 - Physical and Chemical Properties
Section 10 - Stability and Reactivity

4. Langkah-Langkah Pertolongan Cemas

4. First Aid Measures

Kulit:
Skin:

Siram kulit serta merta dengan air yang banyak. Tanggalkan pakaian dan kasut yang tercemar. Panggil doktor jika kerengsaan terjadi dan berterusan. Basuh pakaian sebelum menggunakannya semula. Bersihkan kasut sebersih-bersihnya sebelum menggunakannya semula.

Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Call a physician if irritation develops and persists. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Mata:
Eyes:

Serta merta siram mata dengan air yang banyak selama sekurang-kurangnya 15 minit. Jika mudah, tanggalkan kanta lekap yang dipakai. Dapatkan perhatian perubatan dengan serta merta.

Immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.

Dihidu:
Inhalation:

Pindahkan ke tempat berudara bersih. Jika tidak bernafas, berikan bantuan pernafasan. Jika sukar bernafas, berikan oksigen. Panggil doktor.

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ditelan:
Ingestion:

JANGAN dipaksa muntah. Dapatkan perhatian perubatan dengan serta merta. Jika mangsa sedar sepenuhnya, berikan secawan air. Jangan berikan apa-apa melalui mulut kepada orang yang tidak sedar.

DO NOT induce vomiting. Get medical attention immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

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5. Langkah-Langkah Memadam Kebakaran

5. Fire Fighting Measures

NFPA: Health: 0 Flammability: 2 Reactivity: 0

Sifat-sifat mudah menyala
Flammable properties

Takat kilat (kaedah ujian): approx. 75 C (167 F) (Pensky-Martens.)
Flash point (test method):

Had mudah menyala, Dalam udara, % mengikut isipadu
Flammable limits in air, % by volume:

Bawah: 1.3
Lower:

Suhu swapencucuhan: 405 C (761 F)
Autoignition temperature:

Hasil Pembakaran: **Karbon Monoksida.**
Products of combustion: Carbon Monoxide.

Media pemadam: **Gunakan CO₂ atau kimia kering bagi kebakaran kecil.**
Extinguishing Media: Use CO₂ or dry chemical for small fires.

Gunakan busa pembentuk selaput akueus bagi kebakaran besar.
Use aqueous film forming foam for large fires.

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Petunjuk Memadam Kebakaran

Fire Fighting Instructions

Semburan air patut digunakan bagi menyejukkan struktur dan wadah yang terdedah kepada api.

Water spray should be used to cool fire-exposed structures and vessels.

Kakitangan hendaklah dipindahkan dan dipastikan berada di atas arah tiupan angin ke api. Jika ada kemungkinan pendedahan kepada wap atau produk pembakaran, pakai pakaian bomba yang lengkap serta alat pernafasan swalengkap yang diluluskan NIOSH. Bahan kimia yang mengoksida mungkin mencepatkan kadar pembakaran dalam keadaan kebakaran.

Keep personnel removed from and upwind of fire. If potential for exposure to vapors or products of combustion exists, wear full fire fighting turnout gear and NIOSH approved self-contained breathing apparatus. Oxidizing chemicals may accelerate the burning rate in a fire situation.

Persoalan Alam Sekitar Semasa**Memadam Kebakaran**Fire Fighting Environmental
Concerns

Kelengkapan pakaian bunker dan peralatan memadam kebakaran yang lain hendaklah dibersihkan daripada pencemaran sebelum digunakan semula.

Thoroughly decontaminate bunker gear and other fire-fighting equipment before re-use.

6. Langkah-Langkah Pembebasan Tidak Sengaja**6. Accidental Release Measures****Kecemasan pengangkutan:**

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Petunjuk Tumpahan atau Kebocoran
Spill or Leak Instructions

Hapuskan punca-punca pencucuhan.
Eliminate ignition sources.

Lihat peralatan perlindungan diri di Bahagian 8. Tumpahan hendaklah ditampung dengan benteng tanah atau bahan penyerap yang tidak mudah menyala bagi mengurangkan kawasan yang tercemar.

See Section 8 for appropriate personal protective equipment. Contain spill with dikes of soil or nonflammable absorbent to minimize contaminated area.

Jika ada potensi kebakaran, selimutkan tumpahan dengan busa pembentuk selaput akueus jenis alkohol atau gunakan aliran kabut air untuk menyebarkan wap.

If fire potential exists, blanket spill with alcohol type aqueous film-forming foam or use water fog stream to disperse vapors.

Hindarkan pengaliran ke dalam pemetung dan parit yang membawa ke saluran air. Jika dikehendaki, maklumkan pihak berkuasa negeri dan tempatan. Letakkan bekas yang bocor di kawasan yang sempurna pengudaraannya.

Avoid run-off into storm sewers and ditches leading to waterways. If required, notify state and local authorities. Place leaking containers in well-ventilated area.

Bersihkan tumpahan kecil dengan menggunakan bahan penyerap tidak mudah menyala atau dengan menyiram sedikit-sedikit dengan air. Tampung tumpahan besar dengan benteng atau bahan penyerap tidak mudah menyala. Bersihkan dengan vakum atau menyapu.

Clean up small spills by using a nonflammable absorbent or flushing sparingly with water. Contain larger spills with nonflammable dikeing or absorbent. Clean up by vacuuming or sweeping.

Orang yang tidak perlu jangan dibiarkan dekat; pencilkan kawasan bahaya dan jangan benarkan masuk. Pastikan berada di atas arah tiupan angin; jauhi kawasan rendah.

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas.

Taksir situasi tumpahan, kerana tumpahan mungkin tidak menghasilkan banyak bahan pencemar bawaan udara yang berbahaya dalam kebanyakan situasi tumpahan di luar. Mungkin wajar dalam hal-hal tertentu untuk memantau keadaan sahaja hingga produk tumpah itu dihapuskan.

Assess the spill situation, as the spill may not evolve large amounts of hazardous airborne contaminants in many outdoor spill situations. It may be advisable in some cases to simply monitor the situation until spilled product is removed.

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7. Penanganan dan Penyimpanan

7. Handling and Storage

Penanganan: Handling:

Gunakan dengan pengudaraan memadai. Bekas hendaklah sentiasa ditutup apabila tidak digunakan. Bekas hendaklah dibuka perlahan-lahan bagi melepaskan lebih tekanan. Jangan menghidu wapnya. Hindarkan daripada terkena mata, kulit atau pakaian. Basuh tubuh bersih-bersih dengan sabun dan air setelah menanganinya. Pakaian kotor hendaklah dibersihkan daripada pencemaran sebelum digunakan semula. Pakaian daripada kulit hendaklah dimusnahkan jika tercemar.

Use with adequate ventilation. Keep containers closed when not in use. Always open containers slowly to allow any excess pressure to vent. Avoid breathing vapor. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Decontaminate soiled clothing thoroughly before re-use. Destroy contaminated leather clothing.

Produ ini mungkin membangkitkan cas statik. Bumikan/ikat peralatan peralatan apabila memindahkan bahan bagi mencegah penumpukan statik. Di AS, peralatan elektrik dan litar dalam semua situasi penyimpanan dan penanganan mesti mematuhi Kod Elektrik Nasion (Perkara 500 dan 501) bagi lokasi berbahaya.

This product may generate a static charge. Ground/bond equipment when transferring material to prevent static accumulation. Electrical equipment and circuits in all storage and handling must conform to requirements of National Electric Code (Article 500 and 501) for hazardous location.

Penyimpanan: Storage:

Janga simpan bersama bahan yang tidak serasi. Lihat Bahagian 10. Kestabilan dan Kereaktifan.

Do not store with incompatible materials. See Section 10. Stability and Reactivity.

Semua bekas hendaklah sentiasa ditutup ketat apabila tidak digunakan. Simpan secara terlindung daripada sinaran matahari langsung dan di lantai yang tidak telus.

Keep all containers tightly closed when not in use. Store out of direct sunlight and on an impermeable floor.

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8. Kawalan Pendedahan / Perlindungan Diri **8. Exposure Controls / Personal Protection**

Kawalan kejuruteraan Engineering Controls:

Pengudaraan umum atau sebaran sering kali tidak mencukupi sebagai satu-satunya cara mengawal pendedahan pekerja. Biasanya pendedahan setempat lebih diutamakan.

General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred.

Peralatan pelindung diri Protective Equipment

Tempat mandi keselamatan dan tempat membasuh mata harus disediakan di tempat mudah didapati.

A safety shower and eyebath should be readily available.

Perlindungan kulit: Skin Protection:

Pakai pakaian dan sarung tangan tidak telus bagi menghindari sentuhan. Disarankan supaya menggunakan getah butil. Bahan pelindung yang lain boleh digunakan, mengikut keadaan, sekiranya ada data yang memadai tentang degradasi dan penelapan. Jika bahan kimia lain digunakan bersama bahan kimia ini, pemilihan bahan harus berdasarkan perlindungan terhadap semua bahan kimia yang hadir.

Wear impervious clothing and gloves to prevent contact. Butyl rubber is recommended. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

Perlindungan mata/muka: Eye/face protection:

Pakai gogal kimia jika ada kemungkinan munasabah akan terkena mata.

Wear chemical goggles when there is a reasonable chance of eye contact.

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Perlindungan pernafasan:
Respiratory Protection:

Berdasarkan aras pencemaran dan had bekerja alat pernafasan, gunakan alat pernafasan yang diluluskan oleh NIOSH. Berikut adalah peralatan minimum disarankan bagi aras pendedahan pekerjaan. Bagi menganggarkan pendedahan pekerjaan lihat Bahagian 3, Bahagian 8 dan Bahagian 11.

Based on workplace contaminant level and working limits of the respirator, use a respirator approved by NIOSH. The following is the minimum recommended equipment for an occupational exposure level. To estimate an occupational exposure level see Section 3, Section 8 and Section 11.

Bagi kadar kepekatan > 1 dan <100 kali aras pendedahan pekerjaan: Gunakan alat pernafasan bekalan udara berpelindung muka penuh Jenis C dikendalikan dalam cara permintaan tekanan atau aliran terus menerus.

For concentrations > 1 and < 100 times the occupational exposure level: Use Type C full facepiece supplied-air respirator operated in positive-pressure or continuous-flow mode.

Bagi kadar kepekatan > 100 kali aras pendedahan pekerjaan atau lebih tinggi daripada aras IDLH atau kadar kepekatan tidak diketahui (misalnya dalam kecemasan): Gunakan alat pernafasan swalengkap dengan pelindung muka penuh dalam cara tekanan positif atau alat pernafasan bekalan udara tekanan positif berpelindung muka penuh Jenis C dengan sistem lolos alat pernafasan swalengkap tekanan positif bantu.

For concentrations > 100 times the occupational exposure level or greater than the IDLH level or unknown concentrations (such as in emergencies): Use self-contained breathing apparatus with full facepiece in positive-pressure mode or Type C positive-pressure full facepiece supplied-air respirator with an auxiliary positive-pressure self-contained breathing apparatus escape system.

Untuk lolos: Gunakan alat pernafasan swalengkap dengan pelindung muka penuh atau mana-mana alat pernafasan yang khusus diluluskan bagi meloloskan diri.

For escape: Use self-contained breathing apparatus with full facepiece or any respirator specifically approved for escape.

Garis panduan pendedahan
Exposure guidelines

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Komponen Component	No. CAS CAS Number	% Berat Percent %	ACGIH TWA	ACGIH STEL	ACGIH CEILING	OSHA TWA	OSHA STEL	OSHA CEILING	WEL (Had Pendedahan Tempat Kerja) Celanese Celanese WEL (Workplace Exposure Limit)	Mexico TWA	Mexico STEL	Mexico CEILING
Asid asetik, hidroksi-, butil ester BUTYL GLYCOLATE	7397-62-8	97	-	-	-	-	-	-	-	-	-	-

Komponen Component	No. CAS CAS Number	% Berat Percent %	1990 NIOSH IDLH (Recognized by OSHA)	1994 NIOSH IDLH
Asid asetik, hidroksi-, butil ester BUTYL GLYCOLATE	7397-62-8	97	-	-

Comments:

Garis panduan pendedahan tidak ditetapkan oleh ACGIH atau OSHA.
 No exposure guidelines have been established by ACGIH or OSHA.

Aras IDLH belum dipastikan oleh NIOSH.
 No IDLH level has been established by NIOSH.

9. Sifat-Sifat Fizikal dan Kimia

9. Physical and Chemical Properties

Rupa:

Appearance:

Cecair tak berwarna.

Colorless liquid.

Bau:

Odor:

Bau seperti ester sedikit.

Slight ester-like odor.

pH:

Neutral

Tekanan Wap:

Vapor Pressure:

0.975 mm Hg at 20 C

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186 C (367 F) to 200 C (392 F)

Takat didih (760 mmHgA):
Boiling Point (760 mmHgA):

-26 C (-15 F)

Takat lebur:
Melting Point:

20 g/l

Keterlarutan dalam air pada 20° C:
Solubility in Water @ 20 C:

1.015 to 1.023

Graviti tentu:
Specific Gravity:

10. Kestabilan dan Kereaktifan *10. Stability and Reactivity*

Kestabilan: **Stabil.**
Stability: Stable.

Keadaan yang harus dihindarkan: Produk ini higroskopik. Satu kaedah bagi mengeluarkan lembapan mesti disediakan bagi mencegah pencemaran dan kemungkinan terbentuknya polimer.

Conditions to Avoid:

Avoid heat , flames, sparks, and other sources of ignition.

Bahan yang harus dihindarkan: Jauhkan dari asid sulfurik dan asid tak organik keras yang lain, aluminum atau plumbum (termasuk peralatan yang dibuat daripada logam tersebut), dan agen pengoksidaan seperti peroksida, asid nitrik, asid perklorik atau kromium trioksida.

Incompatibility:

Keep away from sulfuric and other strong inorganic acids, aluminum or lead (including equipment made of these metals), and oxidizing agents such as peroxides, nitric acid, perchloric acid or chromium trioxide.

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Hasil Pembakaran atau Penguraian Berbahaya:
Hazardous combustion or decomposition products:

Hasil penguraian terma boleh termasuk oksida karbon.
Thermal decomposition products may include oxides of carbon.

Pempolimeran berbahaya:
Hazardous Polymerization:

Pempolimeran berbahaya tidak akan terjadi.
Hazardous polymerization will not occur.

11. Maklumat Toksikologi

11. Toxicological Information

Component Toxicological Information

Komponen Component	Asid asetik, hidroksi-, butil ester BUTYL GLYCOLATE
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Acute Exposure:

Oral LD50: 4240-4825 mg/kg (rats); slightly toxic to animals by ingestion.

Skin: May be irritating to skin depending on the concentration and duration.

Eye: Severely irritating to rabbit eyes.

Mutagenicity: Not mutagenic in most in vitro studies (Ames Tests [OECD 471, OECD 472] and Cytogenetic Test with V79 cells [OECD 473]). No in vivo information.

Carcinogenicity: No information available.

Reproductive/Developmental Effects: Rats were dosed orally with Polysolvan O during days 7 to 16 of gestation at doses of 0, 62.5, 250 or 1250 mg/kg/day. The No Observed Adverse Effect Level (NOAEL) was 250 mg/kg/day. At 1250 mg/kg/day, maternal toxicity (including mortality) was observed. Developmental toxicity thought to be a nonspecific, secondary effect caused by the severe maternal toxicity was also observed at the high dose, 1250 mg/kg/day.

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Repeated Exposure: In a 28-day oral study (OECD 471), rats were exposed to doses of 0, 8, 40, 200 or 1000 mg/kg/day of Polysolvan O. The No Observed Adverse Effect Level (NOAEL) was determined to be 200 mg/kg/day. Minor effects on some blood chemistry parameters were noted in the high dose group.

12. Maklumat Ekologi 12. Ecological Information

Component Ecological Information

Komponen Component	Asid asetik, hidroksi-, butil ester BUTYL GLYCOLATE
-----------------------	--

Ecotoxicity: Polysolvan O exhibits slight acute toxicity to aquatic species.

Fish (*Leuciscus idus*) 48-hr. SG = 50 ppm.

Crustacean (*Daphnia magna*) 24-hr. EC50 = 280 ppm.

Bacteria (*Pseudomonas putida*), 18-hr. EC50 = 2320 ppm.

Environmental Fate:

Degradation: Biodegradation was greater than 90% after 5 days in the Modified Zahn Wellens Test (OECD 302B). For atmospheric photochemical degradation, the estimated half-life was 2.5-3.6 days.

Bioaccumulation: The calculated value of the log of the n-octanol/water partition coefficient (log Kow) is 1.057. This indicates low potential for bioaccumulation.

Kecemasan pengangkutan:

Transportation emergency: 703 527 3887 (USA) CHEMTREC, collect calls accepted, 24 hrs/day

Nama produk:	Product name:	Polysolvan O(R)
Nombor MSDS:	MSDS number:	196
Nombor bahan:	Material number:	80196
Tarikh diterbitkan:	Published date:	06/28/2004

13. Pertimbangan Pelupusan

13. Disposal Considerations

Lupuskan bahan tumpah sejajar dengan peraturan negeri dan tempatan bagi bahan buangan yang tidak berbahaya menurut definisi Persekutuan. Harap ingat bahawa maklumat ini adalah bagi bahan sebagaimana dibuat; pemprosesan, penggunaan, atau pencemaran mungkin menjadikan maklumat ini tidak wajar, tidak tepat atau tidak lengkap.

Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

Harap ingat bahawa maklumat penanganan dan pelupusan ini juga mungkin terpakai bagi bekas kosong, pelapik dan bahan bilasannya. Peraturan atau sekatan peringkat negeri atau tempatan adalah kompleks dan mungkin berbeza dengan peraturan persekutuan. Maklumat ini dimaksudkan sebagai bantuan bagi penanganan dan pelupusan yang wajar; tanggung jawab muktamad bagi penanganan dan pelupusan terletak di tangan pemilik bahan buangan berkenaan. Lihat Bahagian 9 Sifat-Sifat Fizikal dan Kimia.

Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste. See Section 9 - Physical and Chemical Properties.

14. Maklumat Pengangkutan

14. Transport Information

US Department of Transportation:

UN/NA Number:	NA 1993
Shipping name:	COMBUSTIBLE LIQUID, N.O.S. (BUTYL GLYCOLATE)
Hazard class:	3
Packing Group:	PG III
Emergency Response Guide:	128

ICAO/IATA:

Proper Shipping Name:	POLYSOLVAN O
Hazard Classification:	Not Regulated.

IMDG:

Kecemasan pengangkutan:

Transportation emergency: 703 527 3887 (USA) CHEMTREC, collect calls accepted, 24 hrs/day

Nama produk:	Product name:	Polysolvan O(R)
Nombor MSDS:	MSDS number:	196
Nombor bahan:	Material number:	80196
Tarikh diterbitkan:	Published date:	06/28/2004

Proper Shipping Name: POLYSOLVAN O
Hazard Class: Not Regulated.
Takat kilat (kaedah ujian): approx. 75 C (167 F) (Pensky-Martens.)
Flash point (test method):

Trade Information

Schedule B Code (export): 2918.19.0000
Harmonization Code (import): 29181930

15. Maklumat Kawalselia 15. Regulatory Information

Hazard labeling:



R phrases

R 41 **Risiko kerosakan mata yang serius.**
R 41 Risk of serious damage to eyes.

S phrases

S 25 **Hindarkan daripada terkena mata.**
S 25 Avoid contact with eyes.
S 26 **Jika terkena mata, bilas serta merta dengan air banyak dan minta nasihat doktor.**
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

INTERNATIONAL REGULATIONS

Inventori kimia

International chemical inventories:

Disenaraikan dalam inventori kimia negara-negara berikut atau layak dikecualikan:
Listed on the chemical inventories of the following countries or qualifies for an exemption:

AUSTRALIA, CHINA, CANADA, EUROPE, KOREA, PHILIPPINES, JAPAN

Kecemasan pengangkutan:

Transportation emergency: 703 527 3887 (USA) CHEMTREC, collect calls accepted, 24 hrs/day

Nama produk:	Product name:	Polysolvan O(R)
Nombor MSDS:	MSDS number:	196
Nombor bahan:	Material number:	80196
Tarikh diterbitkan:	Published	06/28/2004
date:		

16. Maklumat Lain

16. Other Information

Disiapkan oleh: **Jabatan Penyeliaan Produk**
Prepared by: **Celanese Ltd.**
Product Stewardship Department
Celanese Ltd.

Pentarafan bahaya **Maklumat ini dimaksudkan untuk digunakan hanya oleh mereka yang terlatih**
Hazard ratings **dalam sistem NFPA dan/atau HMIS.**
This information is intended solely for the use of individuals trained in the NFPA and/or HMIS systems.

NFPA: Health: 0 Flammability: 2 Reactivity: 0

HMIS: Health: 2 Flammability: 2 Reactivity: 0

The following sections have been revised since the last issue of this MSDS.

Maklumat berikut telah disemak
sejak versi terakhir MSDS ini:

The following has been revised
since the last issue of this MSDS:

1. Pengenalan Produk dan Syarikat

Maklumat yang terkandung di sini adalah tepat sejauh pengetahuan kami. Kami tidak menyatakan atau menjamin bahawa mana-mana bahaya yang disenaraikan di sini adalah satu-satunya yang wujud. Celanese Ltd. tidak memberi jaminan dalam apa jua bentuk, secara nyata atau tersirat, tentang penggunaan bahan ini yang selamat dalam proses anda atau secara bergabung dengan zat lain. Kesan-kesannya boleh diburukkan oleh bahan lain dan/atau bahan ini pula boleh memburukkan atau menambah kesan-kesan bahan lain. Bahan ini boleh dibebaskan daripada bahan gas, cecair, atau pepejal yang dibuat secara langsung atau tidak langsung daripadanya. Pengguna memikul tanggungjawab tunggal untuk menentukan kesesuaian bahan-bahan bagi apa jua kegunaan dan cara penggunaan yang dirancangan. Pengguna mesti memenuhi semua piawai keselamatan dan kesihatan yang berkenaan. Lembaran data keselamatan bahan disediakan di Internet oleh Celanese, Ltd. sebagai satu perkhidmatan untuk pelanggannya. Memiliki MSDS Internet tidak menandakan bahawa pemilik MSDS itu adalah pembeli atau pengguna produk yang berkenaan.

Kecemasan pengangkutan:

Transportation emergency: 703 527 3887 (USA) CHEMTREC, collect calls accepted, 24 hrs/day

Nama produk: Product name: Polysolvan O(R)

Nombor MSDS: MSDS number: 196

Nombor bahan: Material number: 80196

Tarikh diterbitkan: Published 06/28/2004
date:

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Kecemasan pengangkutan:

Transportation emergency: 703 527 3887 (USA) CHEMTREC, collect calls accepted, 24 hrs/day