

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/12/2010

Reviewed on 01/12/2010











1 Identification of substance

- **Product details**
- **Trade name:** C3
- **Article number:** 34022A
- **Application of the substance / the preparation :** Primer for adhesive or sealant
- **Manufacturer/Supplier:**
PEGUS SYSTEMS
2760 RIDGEWAY CT
WALLED LAKE, MI
48390
USA
Phone: 1 248 669 8100
Fax : 1 248 669 2804
Internet : www.pegus.us
- **Information department:** Environment Protection Department
- **Emergency information:**
CHEMTREC-Day and night
Phone : 800-424-9300

2 Composition/Data on components

- **Chemical characterization**
- **Description:** Product based upon polyisocyanate

- **Dangerous components:**

78-93-3	methylethylketone  Xi,  F; R 11-36-66-67	40-60%
123-86-4	n-butyl acetate R 10-66-67	5-15%
63368-95-6	aromatic-aliphatic polyisocyanate  Xi; R 43	5-10%
9016-87-9	diphenylmethanediisocyanate, isomers and homologues  Xn,  Xi; R 20-36/37/38-40-42/43-48/20	4-8%
1333-86-4	Carbon black	2-6%
28182-81-2	aliphatic polyisocyanate  Xi; R 43-52/53	2-6%
108-65-6	2-methoxy-1-methylethyl acetate  Xi; R 10-36	< 1.5%
683-18-1	dibutyltin dichloride  T+,  C,  N; R 60-61-21-25-26-34-48/25-68-50/53	< 0.1%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- **Hazard description:**



Xn Harmful
F Highly flammable

- **Information pertaining to particular dangers for man and environment:**

R 36/37/38 Irritating to eyes, respiratory system and skin.
R 42/43 May cause sensitization by inhalation and skin contact.
R 67 Vapours may cause drowsiness and dizziness
Contains isocyanates. See information supplied by the manufacturer.

(Contd. on page 2)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/12/2010

Reviewed on 01/12/2010

Trade name: C3

(Contd. of page 1)

- **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 3
Reactivity = 0

4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **The following symptoms may occur:**
Headache
Dizziness
Gastric or intestinal disorders
Dizziness
Breathing difficulty

5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards caused by the material, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Carbon monoxide (CO)
Nitrogen oxides (NO_x)
In certain fire conditions, traces of other toxic gases cannot be excluded.
Hydrogen cyanide (HCN)
Isocyanates
- **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:**
Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
Keep away from ignition sources
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Send for recovery or disposal in suitable receptacles.

(Contd. on page 3)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/12/2010

Reviewed on 01/12/2010

Trade name: C3

(Contd. of page 2)

Do not close them (reaction with water forming carbon dioxide)

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good interior ventilation, especially at floor level. (Vapors are heavier than air).
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Provide ventilation for receptacles.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from humidity and water.
Store in dry conditions.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

78-93-3 methylethylketone

PEL	590 mg/m ³ , 200 ppm
REL	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm
TLV	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm BEI

123-86-4 n-butyl acetate

PEL	710 mg/m ³ , 150 ppm
REL	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 710 mg/m ³ , 150 ppm
TLV	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 713 mg/m ³ , 150 ppm

1333-86-4 Carbon black

PEL	3.5 mg/m ³
REL	3.5* mg/m ³ *0.1 in presence of PAHs, as PAHs; 10-hr TWA
TLV	3.5 mg/m ³

108-65-6 2-methoxy-1-methylethyl acetate

WEEL	50 ppm
------	--------

- **Additional Occupational Exposure Limit Values for possible hazards during processing:**

101-68-8 diphenylmethane-4,4'-diisocyanate

PEL	Short-term value: C 0.2 mg/m ³ , C 0.02 ppm
REL	Short-term value: C 0.2* mg/m ³ , C 0.02* ppm Long-term value: 0.05 mg/m ³ , 0.005 ppm *10-min
TLV	0.051 mg/m ³ , 0.005 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 4)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/12/2010

Reviewed on 01/12/2010

Trade name: C3

(Contd. of page 3)

- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Avoid contact with the eyes and skin.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Do not eat, drink or smoke while working.
- **Breathing equipment:**
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
 Short term filter device:
 Filter AB
- **Protection of hands:**
 PVA or natural rubber gloves of superior quality.
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Eye protection:** Tightly sealed goggles
- **Body protection:** Protective work clothing

9 Physical and chemical properties

· General Information

Form:	Fluid
Color:	Black
Odor:	Characteristic

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 79°C (174°F)

· **Flash point:** -8°C (18°F)

· **Ignition temperature:** > 200°C (> 392°F)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower:	1.8 Vol %
Upper:	11.5 Vol %

· **Density at 20°C (68°F):** 0.90

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Viscosity:

Dynamic at 20°C (68°F): 20 mPa.s

· Solvent content:

Organic solvents: 72 %

· **Solids content:** 28 %

10 Stability and reactivity

· Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

(Contd. on page 5)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/12/2010

Reviewed on 01/12/2010

Trade name: C3

(Contd. of page 4)

- **Materials to be avoided:**
- **Dangerous reactions**
*Reacts with alcohols, amines, aqueous acids and alkalis.
 Reacts with water forming carbon dioxide. Danger of receptacles bursting because of vapour overpressure.
 Reacts with strong oxidizing agents.*
- **Dangerous products of decomposition:** *None to our knowledge at room temperature.*

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

78-93-3 methylethylketone

Oral	LD50	3300 mg/kg (rat)
------	------	------------------

Dermal	LD50	5000 mg/kg (rbt)
--------	------	------------------

123-86-4 n-butyl acetate

Oral	LD50	14000 mg/kg (rat)
------	------	-------------------

Inhalative	LC50/4 h	>21.0 mg/l (rat)
------------	----------	------------------

683-18-1 dibutyltin dichloride

Oral	LD50	100 mg/kg (rat)
------	------	-----------------

- **Primary irritant effect:**

- **on the skin:**

Frequent or prolonged contact may irritate and cause dermatitis.

Irritant to skin and mucous membranes.

- **on the eye:** *Irritating effect.*

- **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

- **Additional toxicological information:**

Persons having a history of asthma or of allergies, chronic or recurring difficulties in breathing, must never use this preparation.

12 Ecological information

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow product to reach ground water, water course or sewage system.

13 Disposal considerations

- **Product:**

- **Recommendation:**

Must be disposed of in an incinerator for hazardous waste according to official regulations.

- **Uncleaned packagings:**

- **Recommendation:** *Disposal must be made according to official regulations.*

USA

(Contd. on page 6)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/12/2010

Reviewed on 01/12/2010

Trade name: C3

(Contd. of page 5)

14 Transport information

· DOT regulations:



- **Hazard class:** 3
- **Identification number:** UN1866
- **Packing group:** II
- **Proper shipping name (technical name):** RESIN SOLUTION
- **Label:** 3

· Land transport ADR/RID (cross-border):



- **ADR/RID class:** 3 Flammable liquids
- **Danger code (Kemler):** 33
- **UN-Number:** 1866
- **Packaging group:** II
- **Description of goods:** 1866 RESIN SOLUTION
- **Remarks:** Not regulated if the contents are lower than or equal to 5 litres per interior packaging, and lower than or equal to 20 litres per parcel.

· Maritime transport IMDG:



- **IMDG Class:** 3
- **UN Number:** 1866
- **Label:** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-E
- **Marine pollutant:** No
- **Propper shipping name:** RESIN SOLUTION

· Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1866
- **Label:** 3
- **Packaging group:** II
- **Propper shipping name:** RESIN SOLUTION

15 Regulations

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

(Contd. on page 7)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/12/2010

Reviewed on 01/12/2010

Trade name: C3

(Contd. of page 6)

· **Section 313 (Specific toxic chemical listings):**

78-93-3	methylethylketone
9016-87-9	diphenylmethanediisocyanate, isomers and homologues

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

1333-86-4	Carbon black
-----------	--------------

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

78-93-3	methylethylketone	1
9016-87-9	diphenylmethanediisocyanate, isomers and homologues	CBD

· **IARC (International Agency for Research on Cancer)**

9016-87-9	diphenylmethanediisocyanate, isomers and homologues	3
1333-86-4	Carbon black	2B
26471-62-5	m-tolyldiene diisocyanate	2B

· **NTP (National Toxicology Program)**

26471-62-5	m-tolyldiene diisocyanate	R
------------	---------------------------	---

· **TLV (Threshold Limit Value established by ACGIH)**

1333-86-4	Carbon black	A4
683-18-1	dibutyltin dichloride	A4
26471-62-5	m-tolyldiene diisocyanate	(A4)

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

1333-86-4	Carbon black
26471-62-5	m-tolyldiene diisocyanate

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with EU Directives.

· **Hazard symbols:**



Xn Harmful
F Highly flammable

· **Hazard-determining components of labelling:**

aromatic-aliphatic polyisocyanate
aliphatic polyisocyanate
diphenylmethanediisocyanate, isomers and homologues

· **Risk phrases:**

36/37/38 Irritating to eyes, respiratory system and skin.
42/43 May cause sensitization by inhalation and skin contact.
67 Vapours may cause drowsiness and dizziness

(Contd. on page 8)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/12/2010

Reviewed on 01/12/2010

Trade name: C3

(Contd. of page 7)

· Safety phrases:

- 7/9 Keep container tightly closed and in a well-ventilated place.
- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe vapour.
- 36/37 Wear suitable protective clothing and gloves.
- 45 In case of accident or if you feel unwell, seek medical advice immediately.

· Special labeling of certain preparations:

Contains isocyanates. See information supplied by the manufacturer.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

-

- **Department issuing MSDS:** Laboratory
- **In accordance with the international standard :**
ISO 11014-1

An asterisk in the margin of a paragraph means amendments in comparison to the former version.

USA