Safety data sheet

Pa e: 1/14

Version: 6.0

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 05.01.2011

Product: Iso 135/46 isocyanate component

(ID no. 30067920/SDS GEN GB/EN)

Date of print 06.01.2011

1. Identification of the substance/mixture and of the company/undertaking Product identifier

Iso 135/46 isocyanate component

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Chemical

Recommended use: polyurethane component, industrial chemicals

Details of the supplier of the safety data sheet

Company:
Cromartie Hobbycraft Ltd
Park Hall Road
Longton
Stoke-on-Trent
Staffordshire
ST3 5AY

Telephone: 01782 319435

E-mail address: enquiries@cromartie.co.uk

Telephone: 01782 319435

2. Hazards Identification

Label elements

According to Regulation IECI No 1272/2008 !CLPJ

Pictogram:

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Signal Word:

Danger

Hazard Statement:

H315 Causes skin irritation.

H317 May cause analiergic skin reaction. H319 Causes serious eye irritation.

H332 Harmful if inhaled ..

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation. H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated inhalative

exposure.

Precautionary Statements (Prevention):

P280 Wear protective gloves/protective clothing/eye protection/face

protection.

P285 In case of inadequate ventilation wear respiratory protection.

Precautionary Statements (Response):

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

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

Precautionary Statements (Storage):

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection

point.

Labeling of special preparations (GHS):

Contains isocyanates. See information supplied by the manufacturer.

According to Directive 67/548/EEC or 1999/45/EC

Directive 1999/45/EC ('PreparationDirective')

Hazard symbol(s)

Xn Harmful.

R-phrase(s)

R20 Harmful by inhalation.

R36/37/38 Irritating to eyes, respiratory system and skin.
Limited evidence of a carcinogenic effect.

R42/43 May cause sensitization by inhalation and skin contact.

R48/20 Harmful: Danger of serious damage to health by prolonged exposure

through inhalation.

S-phrase(s)

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S23.3 Do not breathe vapour/spray.

S36/37 Wear suitable protective clothing and gloves.

S45 In case of accident or ifyou'feelunwell, seek medical advice immediately

(show the label where possible).

S-phrase(s)

S26 In case of contact with eyes, linse immediately with plenty of water and

seek medical advice.

S27 Take off immediately all contaminated clothing.

S28.1 After contact with skin, wash immediately with plenty of water and soap.

S39 Wear eye/face protection.

Hazard determining component(s) for labelling: DIPHENYLMETHANDIISOCYANATE, ISO MERES UND HOMOLOGUES

Classification of the substance or mixture

According to Regulation IECI No 1272/2008 [CLPJ

Acute toxicity: Cat. 4 (Inhalation- vapour) Serious eye damage/eye irritation: Cat. 2

Skin corrosion/irritation: Cat. 2

Specific target organ toxicity following single exposure: Cat. 3 (irlitating to respiratory system)

Skin sensitizer: Cat. 1 Respiratory sensitizer: Cat. 1 Carcinogenicity: Cat. 2

Specific target organ toxicity following repeat exposure: Cat. 2 (Inhalation-vapour)

According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards:

Harmful by inhalation.

Irritating to eyes, respiratory system and skin. Limited evidence of a carcinogenic effect.

May cause sensitization by inhalation and skin contact.

Harmful: Danger of serious damage to health by prolonged exposure through inhalation.

Other hazards

Assessment PBT / vPvB:

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fullfilling the PBT (persistenUbioaccumulative/toxic) cliteria ..

3. Composition/Information on Ingredients

Mixtures

Chemical nature

Preparation based on: polyol, P-MDI

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Hazardous ingredients (GHS) according to Regulation (EC) No. 1272/200!!

P-MDI

Content (WNJ): >= 10%- <= 99% Acute lox.: Cat. 4 (Inhalation- vapour)

CAS Number: 9016-87-9 Eye dam./irr.: Cat. 2 Skin corr./irr.: Cat. 2

STOT single: Cat. 3 (irr. to respiratory syst.)

Skin sans.: Cat. 1 Resp. sens.: Cat. 1 Care.: Cat. 2

STOT rep.: Cat. 2 (Inhalation- vapour) H315, H317, H319, H332, H334, H335, H351,

H373

Hazardous ingredients according to Directive 1999/45/EC

P-MDI

Content (WNV): >= 10 % - <= 99 %

CAS Number: 9016-87-9 Hazard symbol(s): Xn

R-phrase(s): 20, 36/37/38, 40, 42/43, 48/20

The wording of the hazard symbols and R-phrases is specified in chapter 16 if dangerous ingredients are mentioned.

•, 1

4. First-Aid Measures

Description of first aid measures Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

After contact with skin, wash immediately with plenty of water. Consult a doctor if skin irritation persists.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: tightness in the chest, coughing, difficulty breathing

Hazards: Symptoms can appear later.

Indication of any immediate medical attention and special treatment needed

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Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary edema.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

dry powder, carbon dioxide, alcohol-resistant foam; water spray

Special hazards arising from the substance or mixture

carbon dioxide, carbon monoxide, hydrogen cyanide, n~rogen oxides, isocyanate The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dusUaerosol.

Environmental precautions

Do not empty into drains. Do not discharge into the. sub!loil/soil.

Methods and material for containment and cl.eaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

Neutralize with a solution of 5-10% Sodium carbonate, 0,2-2% detergents and 90-95% water.

Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

Precautions for safe handling

Provide suitable exhaust ventilation at the processing machines. Ensure thorough ventilation of stores and work areas. Avoid aerosol formation. When handling heated product, vapours of the product should be ventilated, and respiratory protection used. Wear respiratory protection when spraying. Danger of bursting when sealed gaslight. Protect against moisture. Products freshly manufactured from isocyanates can contain incompletely reacted isocyanates and other dangerous substances.

Conditions for safe storage, including any incompatibilities

Keep away from water. Segregate from foods and il~imal feeds. Segregate from acids and bases.

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Suitable materials for containers: carbon steel (iron), High density polyethylene (HOPE), Low density polyethylene (LOPE), tin (tinplate), Stainless steel1.4301 {V2} Unsuitable materials for containers: paper, board

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place. Protect against moisture. Formation of C02 and build up of pressure possible. Danger of bursting when sealed gaslight. Information concerning the compliance to the Packaging (Essential Requirements) Regulations 1998 and their amendments may be obtained from the manufacturer.

Storage stability:

Protect against moisture.

If moisture enters isocyanate containers, C02 forms and pressure builds up.

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

Control parameters

Components with workplace control parameters

101-68-8: Diphenylmethane-4,4'-diisocyanate(MDI) TWA

value 0.02 mg/m3 (EH40 (UK))

Measured as: NCO

STEL value 0.07 mg/m3 (EH40 (UK))

Measured as: NCO

Exposure controls

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Combination filter for gases/vapours of organic compounds and solid and liquid particles (f.e. EN 14387 Type A-P2)

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding> 480 minutes of permeation time according to EN 374): butyl rubber (butyl)- 0.

7 mm coating thickness

nitrile rubber (NBR)- 0.4 mm coating thickness

chloroprene rubber (CR)- 0.5 mm coating thickness

Unsuitable materials

polyvinylchloride (PVC)- 0.7 mm coating thickness Polyethylene-

Laminate (PE laminate) - ca. 0.1 mm coating thickness

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

safety shoes (e.g. according to EN 20346)

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General safety and hygiene measures

Do not breathe vapour/spray. With products freshly manufactured from isocyanates body protection and chemical resistant protective gloves is recommended. Wearing of closed work clothing is required additionally to the stated personal protection equipment. No eating, drinking, smoking or tobacco use at the place of work. Take off immediately all contaminated clothing. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form: liquid Colour: brown

Odour: earthy, musty

Odour threshold:

not applicable

pH value:

not applicable

Boiling range: $> 200 \cdot C$

(1,013 mbar)

Flash point: $> 200 \cdot C$ Flammability: not applicable Ignition temperature: $> 530 \cdot C$ Vapour pressure: < 0.01 Pa

 $(25 \cdot c)$

Density: 1.21 g/cm3

 $(20 \cdot c)$

Solubility in water: Hydrolyzes to form water-insoluble

compounds.

Partitioning coefficient n-octanol/water (log Kow):

not applicable

Thermal decomposition: > 230 °C Viscosity, dynamic: 100 mPa.s

 $(25 \cdot c)$

Other information

10. Stability and Reactivity

Reactivity

Corrosion to metals: No corrosive effect on metal.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with substances which contain active hydrogen.

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Product: Iso 135146 isocyanate component

(ID no. 30067920/SDS GEN GB/EN)

Date of print 06.01.2011

Conditions to avoid

Temperature: < 15 · C

Avoid moisture.

Incompatible materials

Substances to avoid: acids, alcohols, amines, water, Alkalines

Hazardous decomposition products

No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after short-term inhalation. Virtually nontoxic after a single skin contact. Virtually nontoxic after a single ingestion.

Information on: P-MDI

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Of moderate toxicity after short-term inhalation.

Information on: P-MDI

Experimental/calculated data: LD50 rat (oral):> 10,000 mglkg

Information on: P-MDI Experimental/calculated data: LD50 rabbit (dermal):> 10,000 mglkg

Irritation

Assessment of irritating effects:

Eye contact causes irritation. Skin contact causes irritation.

Information on: P-MDI

Assessment of irritating effects:

Eye contact causes irritation. Skin contact causes irritation.

Information on: P-MDI

Experimental/calculated data:

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(ID no. 30067920/SDS GEN GB/EN)

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Skin corrosion/irritation: Irritant.

Information on: P-MDI

Experimental/calculated data:

Serious eye damage/irritation: Irritant.

Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract.

Information on: P-MDI

Assessment of sensitization:

The substance may cause sensitization of the respiratory tract. Sensitization after skin contact

possible.

Germ cell mutagenicity

Assessment of mutagenicity:

The chemical structure does not suggest such an effect.

Information on: P-MDI

Assessment of mutagenicity:

The substance was mutagenic in various test systems with microorganisms and cell cultures;

however, these results could not be confirmed in tests with mammals.

Carcinogenicity

Assessment of carcinogenicity:

A carcinogenic effect cannot safely be ruled out.

Information on: P-MDI

Assessment of carcinogenicity:

Indication of possible carcinogenic effect in animal tests. However, the relevance of this result for

humans is unclear. The substance was tested in form of respirable aerosols.

Reproductive toxicity

Assessment of reproduction toxic~y:

The chemical structure does not suggest such an effect.

Information on: P-MDI

Assessment of reproduction toxicity:

Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.

Developmental toxicity

Assessment of teratogenicity:

Pa e: 10/14

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The chemical structure does not suggest such an effect.

Information on: P-MDI

Assessment of teratogenicity:

Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the

parental animals.

Experiences in humans

Information on: P-MDI

Experimental/calculated data:

coughing, dyspnea, tightness in the chest, temporary influenza/ symptoms:

Can severely irritate the eyes and respiratory tract depending upon the concentration.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Repeated inhalation exposure may affect certain organs. Repeated exposure to the substance by dermal administration leads to effects similar to those found after single exposure. Repeated exposure to the substance by oral administration leads to effects similar to those found after single exposure.

Information on: P-MDI

Assessment of repeated dose toxicity:

The substance may cause damage to the lung even after repeated inhalation of low doses, as shown in animal studies.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

The product has not been tested. The statement has been derived from the properties of the individual components.

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

Information on: P-MDI

Assessment of aquatic toxicity:

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Product: Iso 135/46 isocyanate component

(ID no. 30067920/SDS GEN GB/EN)

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There is a high probability that the product is not acutely harmful to aquatic organisms. No toxic effects occur within the range of solubility.

Information on: P-MDI

Toxicity to fish:

LCO (96 h) > 1, 000 mg/1, Fish (other)

Information on: P-MDI Aquatic invertebrates:

ECO (24 h) > 500 mg/1, daphnia (other)

Information on: P-MDI Aquatic plants:

ECO (72 h) 1,640 mg/1, Scenedesmus subspicatus (OECD Guideline 201)

Persistence and degradability

Assessment biodegradation and elimination (H20):

Hydrolyzes to form water-insoluble compounds. Experience shows this product to be inert and non-degradable.

Information on: P-MDI

Assessment biodegradation and elimination(H20): Poorly biodegradable. -----

Information on: P-MDI Elimination information:

< 10% BOD of the ThOD (28 d) (OECD Guideline 302 C) (aerobic, activated sludge) Under test conditions no biodegradation observed.

Bioaccumulative potential

Assessment bioaccumulation potential:

Significant accumulation in organisms is not to be expected.

Information on: P-MDI Bioaccumulation potential:

Accumulation in organisms is not to be expected.

Mobility in soil (and other compartments if available)

Assessment transport between environmental compartments:

Adsorption to solid soil phase is not expected.

Results of PBT and vPvB assessment

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fullfilling the PBT (persistent/bioaccumulativeltoxic) criteria ..

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Information on: P-MDI

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): Not fulfilling PBT

(persistenVbioaccumulative/toxic) criteria,.

Other adverse effects

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Additional information

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Other ecotoxicological advice:

Do not release untreated into natural waters. Do not allow to enter soil, waterways or waste water channels. The product has not been tested. The statement has been derived from the properties of the individual components.

13. Disposal Considerations

Waste treatment methods

The UK Environmental Protection (Duty of Care) Regulations **(EP)** and amendments should be noted (United Kingdom).

Incinerate in suitable incineration plant, observing local authority regulations.

This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

Waste key:

07 02 OBc other still bottoms and reaction residues

Contaminated packaging:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Land transport

ADR

Not classified as a dangerous good under transport regulations

RID

Not classified as a dangerous good under transport regulations

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(ID no. 30067920/SDS GEN GB/EN)

Date of print 06.01.2011

Inland waterway transport

ADN

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

This product is classified under the Chemicals (Hazard Information and Packaging) Regulations, (CHIP) {United Kingdom).

Occupational Asthma (of which exposure to isocyanates can be a cause) is a reportable disease listed in the Reporting of Injuries, Diseases and Dangerous Occurrence Regulations (United Kingdom). The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSH H), and related guidance, for example, 'COSHHEssentials' (United Kingdom).

Diisocyante processes may have to be registered with the appropriate authority, agency or inspectorate as laid down in the (Environmental Protection) Pollution Prevention Control Regulations for the various parts of the United Kingdom (United Kingdom).

This product is not classified as dangerous for transport according to the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009.

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Chemical Safety Assessment

Chemical Safety Assessment not required

16. Other Information

Full text of hazard symbols, hazard statements and R-phrases if mentioned as hazardous components in chapter 3:

Xn Harmful.

Harmful by inhalation.

36/37/38 Irritating to eyes, respiratory system and skin.
40 Limited evidence of a carcinogenic effect.

42/43 May cause sensitization by. inhalation and skin contact.

48/20 Harmful: Danger of serious'damage to health by prolonged exposure

through inhalation.

H315 Causes skin irritation.

exposure.

Date / Revised: 05.01.2011 Version: 6.0

Product: Iso 135/46 isocyanate component

{ID no. 30067920/SDS GEN GB/E	EN)
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	Date of print 06.01.2011
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repealed inhalative

If you have any queries relating to this MSDS, it'scontents or any other product safety related questions, please write to the following e-mail address: Product-Safety-Eiastogran@basf.com Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Elastogran UK Limited Safety data sheet

Elastogran *O*

BASFGroup

Page: 1/6

Safety data sheet according to 91 /155/EEC

Date / Revised: 09.09.2002 Version: 1.0

Product: Lupranol 2047

(30073821/SDS GEN GB/EN)

Date of print 13.02.2003

CEAS E-Polyol

1. Substance/preparation and company identification

Use: Chemical, Raw material

Lupranol 2047

Use: Industrial Chemical, Polyurethane Component

Company: Cromartie Hobbycraft Ltd Park Hall Road Longton Stoke-on-Trent Staffordshire ST3 5AY

01782 319435 enquiries@cromartie.co.uk

2. Composition/information on ingredients

Chemical nature

polyetherpolyol, branched

3. Hazard identification

No particular hazards known.

4. First-aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

On skin contact:

After contact with skin, wash immediately with plenty of water and soap.

Safety data sheet according to 91 /155/EEC

Date / Revised: 09.09.2002 Version: 1.0

Product: Lupranol 2047

(30073821/SDS GEN GB/EN)

Date of print 13.02.2003

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention.

Note to physician:

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-fighting measures

Suitable extinguishing media:

water, dry extinguishing media, foam, carbon dioxide

Specific hazards:

carbon dioxide, carbon monoxide

The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with national/ local regulations.

6. Accidental release measures

Personal precautions:

Use personal protective clothing.

Environmental precautions:

Do not empty into drains. Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder).

Dispose of contaminated material in accordance with national regulations.

Additional information: High risk of slipping due to leakage/spillage of product.

7. Handling and storage

Handling

Ensure thorough ventilation of stores and work areas. Protect against moisture.

Protection against fire and explosion:

No special precautions necessary.

Safety data sheet according to 91/155/EEC

Date / Revised: 09.09.2002 Version: 1.0

Product: Lupranol 2047

(30073821/SDS GEN GB/EN)

Date of print 13.02.2003

Storage

Segregate from foods and animal feeds. Segregate from acids. Segregate from oxidants. Further information on storage conditions: Containers should be stored tightly sealed in a dry place.

8. Exposure controls and personal protection

Components with workplace control parameters

None

Personal protective equipment

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm)

Eye protection:

Safety glasses with side-shields (frame goggles) (EN 166)

General safety and hygiene measures:

Wearing of closed work clothing is required additionally to the stated personal protection equipment. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

9. Physical and chemical properties

Form: viscous
Colour: colourless
Odour: almost odourless

pH value: approx. 7 (25 ·CJ

Flash point: > 160 °C

Vapour pressure: < 10 mbar (25 °C)

Density: 1.0 - 1.2 g/cm3 (25 °C)

Solubility in water: sparingly soluble

Viscosity: 950 mPas (25 °C)

Molar mass: approx. 3550 g/mol

Safety data sheet according to 91 /155/EEC

Date / Revised: 09.09.2002 Version: 1.0

Product: Lupranol 2047

(30073821/SDS GEN GB/EN)

Date of print 13.02.2003

10. Stability and reactivity

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:

acids, oxidizing agent, isocyanates

11. Toxicological information

LD50/oral/rat: > 2000 mg/kg

Additional information:

The product was not tested. The statement was derived from products of a similar structure and composition.

12. Ecological information

Ecotoxicity

Toxicity to fish:

Leuciscus idus/Lowest observed effect concentration (48 h): 4600 mg/1

Microorganisms/Effect on activated sludge: Pseudomonas putida/EC10: > 10,000 mg/1

Persistence and degradability

Elimination information

Evaluation: Poorly biodegradable.

Other adverse effects

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Additional Information

Other ecotoxicological advice:

Do not allow to enter soil, waterways or waste water channels. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. The product was not tested. The statement was derived from products of a similar structure and composition.

Packaging: Information concerning the compliance of our packaging with the Packaging (Essential Requirements) Regulations 1998 and amendments may be obtained by contacting the manufacturers at the address shown on the M.S.D.S.

Safety data sheet according to 91/155/EEC

Date / Revised: 09.09.2002 Version: 1.0

Product: Lupranol 2047

(30073821/SDS GEN GB/EN)

Date of print 13.02.2003

13. Disposal considerations

Incinerate in suitable incineration plant, observing local authority regulations.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

European Waste Catalogue & Hazardous Waste List Waste key: 070308 other still bottoms and reaction residues

Contaminated packaging:

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Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

When disposed of the product will not be 'specialwaste'as defined in the Special Waste Regulations 1996, SI 972 and amendments

14. Transport information

This product is not classified as dangerous for carriage according to The Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles Regulations SI 2092 1996 and amendments.

15. Regulatory information

Regulations of the European union (Labelling) / National legislation/Regulations

Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances:

The product does not require a hazard warning label in accordance with EC Directives.

Safety phrases:

S26 In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice.

S27 Take off immediately all contaminated clothing.

S28·B After contact with skin, wash immediately with plenty of soap and water. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Other regulations

This product is not classified as dangerous under the UK Chemicals (Hazard Information and Packaging) Regulations and ammendments (CHIP) (United Kingdom).

Safety data sheet according to 91/155/EEC

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Product: Lupranol 2047

(30073821/SDS GEN GB/EN)

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16. Other information

Recommended use: polyurethane component, industrial chemicals

CEAS E-Polyo/

Vertical lines in the left hand margin indicate an amendment from the previous version.

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.