Version 3.0 Rev. 4.0 Revision date 02/26/15



# **Safety Data Sheet**

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# 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY UNDERTAKING

1.1. Product identifier

Product name PARFIX 3454 Cyanoacrylate Adhesive

Product Grade 3454

CAS number 7085-85-0
EC number 230-391-5
Index number 607-236-00-9

1.2. Relevant identified uses of the substance and uses advised against

Applications Industrial adhesives application

Consumer use of adhesives

1.3. Details of the supplier of the safety data sheet

Name Parson Adhesives Inc. Address 3345 Auburn Road

Suite 107

Rochester, MI 48309

**USA** 

Telephone 248-299-5585 Fax 248-299-3846

Contact email sales@parsonadhesives.com

1.4. Emergency telephone number

Chemtrec Telephone 1-800-262-8200

### 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance

### 2.1.1. Classification of the product according to DSD (67/548/EC)

Xi IRRITANT R 36/37/38 Irritating to eyes, respiratory system and skin

#### 2.1.2. Classification of the product according to CLP (1272/2008/EC)

Eye irrit. 2 H319 Causes serious eye irritation
STOT SE 3 H335 May cause respiratory irritation

Skin irrit. 2 H315 Causes skin irritation

### 2.2. Label elements according to CLP (1272/2008/EC)

Hazard pictograms





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Signal word Warning

Hazard statements H319 Causes serious eye irritation

H335 May cause respiratory irritation

H315 Causes skin irritation

EUH202 – "Cyanoacrylate. Danger. Bonds skin and eyes in second. Keep out

of the reach of children"

Precautionary statements -Prevention P280 Wear protective gloves/protective clothing/eye protection/ face

protection

Precautionary

statements - Response

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a

position comfortable for breathing

P332+313 If skin irritation occurs: Get medical advice/attention

P305+351+338 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+233 Store in a well-ventilated place. Keep container tightly closed

Precautionary

statements - Disposal

P501 Dispose of contents/container as hazardous or special waste

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Name of substance	CAS No.	EC No.	Index No.	Concentration	Classification (DSD/CLP)	Specific concentration limits
Ethyl-2- cyanoacrylate	7085-85-0	230-391-5	607-236-00-9	80 – 99 %	Xi; R36/37/38	C ≥ 10% : Xi; R36/37/38
					Eye irrit. 2;	
					H319	
					STOT SE 3;	
					H335	
					Skin irrit. 2;	
					H315	

# 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

General

Call a POISON CENTER or doctor/physician if you feel unwell



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Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If still feeling unwell seek medical attention.

Skin

IF ON SKIN: Wash with plenty of soap and water. Do not pull bonded skin apart. It may be gently peeled apart using a blunt object such as a spoon, preferably after soaking in warm soapy water. Cyanoacrylates give off heat on solidification. In rare cases a large drop will generate enough heat to cause a burn. Burns should be treated normally after the adhesive has been removed from the skin.

If lips are accidentally stuck together apply warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth. Peel or roll lips apart. Do not try to pull the lips apart with direct opposing action. If skin irritation occurs: Get medical advice/attention.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If the eye is bonded closed, release eyelashes with warm water by covering with wet pad. Cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to debond the adhesive. Keep eye covered until debonding is complete, usually within 1-3 days. Medical advice should be sought in case solid particles of cyanoacrylate trapped behind the eyelid cause an abrasive damage.

Ingestion

Ensure that breathing passages are not obstructed. The product will polymerise immediately in the mouth making it almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth (several hours).

#### 4.2. Most important symptoms and effects, both acute and delayed

Gross contamination with the adhesive may generate enough heat to cause a burn.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Not determined

### 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

<u>Suitable extinguishing agents</u>: Dry powder, foam, carbon dioxide, fine water spray

<u>Unsuitable extinguishing agents</u>: Water jet

5.2. Special hazards arising from the substance or mixture

Trace amounts of toxic fumes may be released on incineration. Hazardous combustion products: oxides of carbon, oxides of nitrogen, irritating organic vapours.

5.3. Advice for firefighters Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and suitable protective clothing.



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### **6. ACCIDENTAL RELEASE MEASURES**

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Wear protective gloves/protective clothing/eye protection/ face protection. Avoid skin and eye contact. Avoid breathing dust/fume/gas/mist/vapours/spray.

**6.2. Environmental precautions** 

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Do not use clothes for mopping up. Flood with water to complete polymerisation and scrape off the floor. Cured material can be disposed of as non-hazardous waste.

6.4. Reference to other sections

Safe handling: see section 7 Disposal: see section 13

Personal protective equipment: see section 8

### 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Ventilation (low level) is recommended when using large volumes. Use of dispensing equipment is recommended to minimise the risk of skin or eye contact. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

For optimum shelf life store in original containers under refrigerated conditions at 2°C to 8°C. Store locked up.

7.3. Specific end use(s) Not applicable

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### **Exposure limit values**

Country	Туре	Value
UK	STEL	0.3 ppm; 1.5 mg.m <sup>-3</sup> (15 min)
Ireland	OEL / TWA	0.2 ppm
Germany	MAK	No MAK value established
France	VME/VLE	No VME/VLE established

#### Derived DNEL(s) / DMEL(s)

Туре	Details	Value	Basis



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Worker – inhalation	Systemic effect –	9.25 mg/m³	irritation (respiratory
route	Long term exposure		tract)
Worker – inhalation	Local effect – Long	9.25 mg/m³	irritation (respiratory
route	term exposure		tract)
General population –	Systemic effect –	9.25 mg/m³	irritation (respiratory
inhalation route	Long term exposure		tract)
General population –	Local effect – Long	9.25 mg/m³	irritation (respiratory
inhalation route	term exposure		tract)

### Derived PNEC(s)

Tests in aqueous media with ethyl-2-cyanoacrylate with the intent to determine effective concentrations or no effect concentrations cannot be performed due to technical reasons based on the chemical properties of the monomer.

#### 8.2. Exposure controls

Appropriate engineering controls Provide adequate ventilation in area of use. Do NOT use this product in an enclosed or poorly ventilated area. Local exhaust ventilation is normally required when handling or using this product to keep airborne powder below the nationally authorized limits. If ventilation alone cannot control exposure, respiratory protection must be used.

Personal protection

Respiratory protection: Ensure adequate ventilation.

<u>Hand protection</u>: In circumstances where there is a potential for prolonged or repeated skin contact, the use of polyvinyl chloride or nitrile rubber gauntlets or equivalent solvent resistant gloves is recommended.

The use of chemical resistant gloves such as Nitrile is recommended. Polyethylene or polypropylene gloves are recommended when using large volumes. Do not use PVC, rubber, nylon or cotton gloves.

**Eye protection**: Wear protective glasses.

**Body protection:** Not applicable

Hygiene measures: Good industrial hygiene practices should be observed. Take off contaminated clothing and wash it before reuse. Wash hands

thoroughly after handling.

Environmental exposure controls Not available

# 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information of basic physical and chemical properties

- Physical state Liquid

- Colour Transparent, colourless



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- Odour pungent

Odour threshold Not determinedpH Not determined

- Melting point -31°C

- Boiling point 214 °C (at 1003 mbar) - Flash point 82.5 °C (at 1003 mbar)

- Evaporation rate Not determined- Flammability Not flammable

- Auto flammability 480°C

- Upper/lower Not applicable

flammability or explosive limits

- Explosive properties- Oxidising propertiesNo oxidising properties

- Vapour pressure ≤ 21 Pa

- % volatile by volume Not determined
 - Vapour density Not determined
 - Specific gravity 1.043 g/cm³ at 20°C

- Solubility in water ≤ 0,024 mg/l

- Other Solvents Recovery in acetone: 91.8%

Recovery in acetonitrile: 96.5%

- Partition coefficient (n-octanol/water) Log Pow 0,776 (calculated)

- Decomposition temperature

Not determined

#### 9.2. Other information

None

# 10. Stability and reactivity

**10.1. Reactivity** Not determined

10.2. Chemical stability

Stable under normal conditions of storage and use

10.3. Possibility of hazardous reactions

Polymerisation will occur in the presence of moisture and other basic

materials

**10.4. Conditions to** Moisture, humidity, basic material

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avoid

10.5. Incompatible

materials

Water, soil, amines, alkalis and alcohols

10.6. Hazardous decomposition materials

Oxides of carbon, oxides of nitrogen

# 11. Toxicological information

#### 11.1. Information on toxicological effects

- Acute toxicity Oral:  $LD_{50}$  (oral, rat) > 5000 mg/kg bw (OECD 401)

Dermal: LD<sub>50</sub> (dermal, rabbit) > 2000 mg/kg bw (OECD 402)

Inhalation: In dry atmosphere with < 50% humidity, vapours may irritate the eyes and respiratory system. Prolonged exposure to high concentrations of

vapours may lead to chronic effects in sensitive individuals.

- Skin

corrosion/irritation

Causes skin irritation

- Serious eye damage/irritation

Irritating to eyes. In a dry atmosphere (RH<50%) vapours may cause

irritation and lachrymatory effect.

- Respiratory or skin

sensitisation

Due to polymerisation at the skin surface allergic reaction is not considered possible. The polymerized material is not able to penetrate into the

epidermis.

- Germ cell mutagenicity

Because of the reduced exposure to monomer and the reported negative test result in various mutagenicity tests, ethyl-2-cyanoacrylate cannot be

classified as mutagen.

Carcinogenicity

Not carcinogenic

- Reproductive toxicity

Not toxic by reproduction

- STOT-single exposure

May cause irritation for skin, eyes and respiratory system

- STOT-repeated

exposure

Ethyl-2-cyanoacrylate is not toxic by repeated absorption

- Aspiration hazard

Not determined

#### 11.2. Other information

None

# 12. Ecological information



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12.1. Toxicity Low ecotoxicity

12.2. Persistence and degradability

Not applicable (the test compound would polymerize with contact of water

or the moisture of the soil immediately)

12.3. Bioaccumulative potential

Not applicable (in presence of moisture ethyl-2-cyanoacrylate polymerises

within seconds)

12.4. Mobility in soil Not applicable (the test compound would polymerize with contact of water

or the moisture of the soil immediately)

12.5. Results of PBT and vPvB assessment The PBT and vPvB criteria do not apply to ethyl-2-cyanaoacrylate

12.6. Other adverse

Not determined

effects

# 13. Disposal considerations

#### 13.1. Waste treatment methods

#### **Product disposal:**

Cured adhesive: Dispose of as water insoluble non-toxic solid chemical in authorised landfill or incinerate under controlled conditions.

Dispose of in accordance with local and national regulations. Polymerise by adding slowly to water (10:1).

Contribution of this product to waste is very insignificant in comparison to article in which it is used.

#### Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated. Disposal must be made according to official regulations.

13.2. Waste code numbers / Waste identification

08 04 09 waste adhesives and sealants containing organic solvents and other

dangerous substances.

# 14. Transport information

	Overland transport (ADR/RID)	River transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN Number	Not regulated			Not Regulated
14.2. UN proper shipping name		Not regulated		liquid, (Cyanoacrylate ester)



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14.3. Transport			
hazard classes	Not regulated	9	
14.4. Packing group	Not regulated	Not regulated	
14.5. Environmental hazards	-	no	-
14.6. Classification	Not regulated		(Cyanoacrylate ester), 9
14.9. Limited amount (LQ)	Not regulated		-
14.10. Additional information	Not determined	Unrestricted.	

# 14.11. Special precautions for user

Not determined

### 14.12. Transport in bulk

Not determined

# 15. Regulatory information

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

Not determined

**15.2.** Chemical safety assessment

A chemical safety assessment has been performed.

# 16. Other information

### 16.1. Indication on the revision

SDS revised on the 02<sup>th</sup> February 2015: inclusion of CLP and DSD classification according to CLP regulation (1272/2008/EC) and addition of all fields as required by regulations 1907/2006/EC and 453/2010/EC.

### 16.2. Abbreviations and acronyms

ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on inland waterways.

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ADR/RID: European Agreement, concerning the International Carriage of Dangerous Goods by Road/Regulations concerning the international carriage of dangerous goods by rail.

ACGIH: American Conference of Governmental Industrial Hygienists

CAS Number: Chemical Abstract Service Number

CLP: Classification, Labelling and Packaging

**DNEL: Derived No Effect Level** 

**DPD: Dangerous Preparation Directive** 

**DSD: Dangerous Substance Directive** 

EC Number: European Commission Number

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Associations

IMDG: International Maritime Dangerous Goods code

NIOSH: National Institute of Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

PNEC: Predicted No Effect Concentration

PBT: Persistent, Bio accumulative, Toxic

**UN Number: United Nations Number** 

UVCB: Substances of Unknown or Variable composition, Complex reaction products or Biological

materials

TWA: Time-Weighted Average

VOC: Volatile organic compounds

VPvB: very Persistent and very Bio accumulative

WEL: Workplace Exposure Limit (UK HSE EH40)

#### 16.3. Key literature references and sources for data

The present data in this SDS are based on the data present in the registration dossier of Ethyl Cyanoacrylate.

### 16.4. Classification of mixtures and applied evaluation method

Not applicable



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### 16.5. Wording of the R- and H- phrases (which are not written in full under section 2 to 15)

Risk phrases: -

H statements: -

S phrases:

S23 Do not breath vapour

S24/25 Avoid contact with skin and eyes

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

### 16.6. Training advice

Unavailable

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.