

Safety data sheet

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BASF Safety data sheet

Date / Revised: 28.01.2019

Product: **50-415 2,5L Clear Hardener Fast VOC**

Version: 3.2

(30392381/SDS_GEN_NZ/EN)

Date of print 22.01.2020

1. Substance/preparation and manufacturer/supplier identification

50-415 2,5L Clear Hardener Fast VOC

Recommended use: Sprayable

Manufacturer/supplier:

BASF New Zealand Ltd.
Regus Auckland Airport
Level 1, Quad 7, 6 Leonard Isitt Drive
PO Box 407 Shortland Street, Auckland 2022
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:

National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:

Acute toxicity: Cat. 4 (Inhalation - vapour)

Skin corrosion/irritation: Cat. 3

Serious eye damage/eye irritation: Cat. 2A

Aspiration hazard: Cat. 1

Skin sensitization: Cat. 1

Specific target organ toxicity — single exposure: Cat. 3 (irritating to respiratory system)

Specific target organ toxicity — repeated exposure: Cat. 2

Hazardous to the aquatic environment - acute: Cat. 3

Flammable liquids: Cat. 3

Label elements and precautionary statement:

Pictogram:



Signal Word:

Danger

Hazard Statement:

H319	Causes serious eye irritation.
H316	Causes mild skin irritation.
H332	Harmful if inhaled.
H317	May cause an allergic skin reaction.
H402	Harmful to aquatic life.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H335	May cause respiratory irritation.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash with plenty of water and soap thoroughly after handling.
P242	Use only non-sparking tools.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P260	Do not breathe dust or mist.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response):

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P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P370 + P378 In case of fire: Use water spray for extinction.
 P363 Wash contaminated clothing before reuse.
 P321 Specific treatment (see on this label).
 P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P337 + P313 If eye irritation persists: Get medical advice/attention.
 P314 Get medical advice/attention if you feel unwell.
 P331 Do NOT induce vomiting.

Precautionary Statements (Storage):

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P403 + P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.

Precautionary Statements (Disposal):

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

Repeated exposure may cause skin dryness or cracking. Contains isocyanates. May produce an allergic reaction.

3. Composition/information on ingredients

Chemical nature

polyisocyanate, organic solvent

Hazardous ingredients

Benzoic acid

Content (W/W): >= 1 % - < 2 %
 CAS Number: 65-85-0

Acute Tox.: Cat. 5 (oral)
 Acute Tox.: Cat. 5 (dermal)
 Skin Corr./Irrit.: Cat. 2
 Eye Dam./Irrit.: Cat. 1
 STOT RE (Lung): Cat. 1 (by inhalation)

ethylbenzene

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Content (W/W): $\geq 1\%$ - $< 2\%$ CAS Number: 100-41-4	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 2 Acute Tox.: Cat. 4 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) STOT RE (Auditory organ): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3
4-methylpentan-2-one Content (W/W): $\geq 12.5\%$ - $< 15\%$ CAS Number: 108-10-1	Flam. Liq.: Cat. 2 Acute Tox.: Cat. 4 (Inhalation - vapour) Eye Dam./Irrit.: Cat. 2A STOT SE: Cat. 3 (irr. to respiratory syst.)
n-Butyl acetate Content (W/W): $\geq 12.5\%$ - $< 15\%$ CAS Number: 123-86-4	Flam. Liq.: Cat. 3 STOT SE: Cat. 3 (drowsiness and dizziness) Aquatic Acute: Cat. 3
Propanoic acid, 3-ethoxy-, ethyl ester Content (W/W): $\geq 2.5\%$ - $< 3\%$ CAS Number: 763-69-9	Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (oral) Aquatic Acute: Cat. 3
xylene Content (W/W): $\geq 7\%$ - $< 10\%$ CAS Number: 1330-20-7	Asp. Tox.: Cat. 1 Flam. Liq.: Cat. 3 Acute Tox.: Cat. 5 (Inhalation - vapour) Acute Tox.: Cat. 5 (oral) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 2B STOT SE: Cat. 3 (irr. to respiratory syst.) STOT RE (Central nervous system, Liver, Kidney): Cat. 2 Aquatic Acute: Cat. 2 Aquatic Chronic: Cat. 3
1,6-hexamethylene diisocyanate Content (W/W): $\geq 0.1\%$ - $< 0.2\%$ CAS Number: 822-06-0	Acute Tox.: Cat. 4 (oral) Acute Tox.: Cat. 1 (Inhalation - mist) Skin Corr./Irrit.: Cat. 2 Eye Dam./Irrit.: Cat. 2A Resp. Sens.: Cat. 1 Skin Sens.: Cat. 1 STOT SE: Cat. 3 (irr. to respiratory syst.)
HDI-oligomer (trimer)	

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Content (W/W): $\geq 50\%$ - $< 75\%$ Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 28182-81-2 Acute Tox.: Cat. 4 (Inhalation - vapour)
Skin Sens.: Cat. 1
STOT SE: Cat. 3 (irr. to respiratory syst.)

4. First-Aid Measures

General advice:

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If inhaled:

Remove affected person from danger area. Keep warm, calm and covered up. If breathing is irregular or stopped, administer artificial respiration. Seek medical assistance. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position).

On skin contact:

Remove contaminated clothing. Wash skin with soap and water, rinse abundantly. Do NOT use solvents or thinners.

On contact with eyes:

Contact lenses should be removed. Hold eyelids open and flush with copious amounts of clean, fresh water or a special eyewash solution. Seek medical assistance.

On ingestion:

If accidentally swallowed obtain immediate medical attention. Keep at rest. Do not induce vomiting.

Note to physician:

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Treatment: No data available.

5. Fire-Fighting Measures

Suitable extinguishing media:

Foam (alcohol resistant), carbon dioxide, powders, water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Unsuitable extinguishing media for safety reasons:

water jet

Specific hazards:

Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

Special protective equipment:

Appropriate breathing apparatus may be required.

Further information:

Cool closed containers in the vicinity of the source of fire.

6. Accidental Release Measures

Personal precautions:

Keep away from sources of ignition. Advice on product handling can be found in sections 7 and 8 of this safety data sheet. Ensure adequate ventilation. Avoid breathing vapours.

Environmental precautions:

Do not allow to enter drains or waterways. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.

Methods for cleaning up or taking up:

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): ethanol or isopropyl alcohol (50 parts); water (45 parts); concentrated (d:0,880) ammonia solution (5 parts). A non-flammable alternative is: sodium carbonate (5 parts); water (95 parts) Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to the waste regulations (see section 13).

7. Handling and Storage

Handling

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Avoid inhalation of dust from sanding. Product may charge electrostatically: always use earthing leads when transferring from one container to another and earth containers. It is recommended that operators should wear antistatic clothing and footwear. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Care should be taken when reopening partly used containers (pressurization!). Solvent vapours are heavier than air and spread along floors. Vapour forms explosive mixtures with air. Keep container dry and tightly closed in a cool well-ventilated place. Avoid all sources of ignition: heat, sparks, open flame. Do not use any sparking tools.

Avoid contact with skin and eyes. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. Avoid inhalation of vapour and spray mist.

Storage

Keep away from strongly acid and strongly alkaline materials, from oxidizing agents, amines, alcohols and water.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate)

Further information on storage conditions: Electrical equipment must be explosion-proof to the appropriate standard. Floors must be of conducting type and impermeable to the materials being stored. Keep container tightly closed. Never use pressure to empty; container is not a pressure

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vessel. Close containers carefully once opened and store upright in order to prevent any leakage. No smoking. Prevent unauthorized access. Precautions should be taken to minimise exposure to atmospheric humidity or water: carbon dioxide will be formed which in closed containers can result in pressurisation. Detailed information can be gained from the relevant technical data sheets. Always keep in containers of same material as the original one. Observe label precautions. Store in a dry, well ventilated place. Protect from direct sunlight. Keep away from sources of ignition. Keep away from heat.

Storage stability:

Storage temperature: 5.00 - 35.00 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

ethylbenzene, 100-41-4;

TWA value 20 ppm (ACGIHTLV)

STEL value 543 mg/m³ ; 125 ppm (OEL (NZ))TWA value 434 mg/m³ ; 100 ppm (OEL (NZ))

4-methylpentan-2-one, 108-10-1;

STEL value 75 ppm (ACGIHTLV)

TWA value 20 ppm (ACGIHTLV)

STEL value 307 mg/m³ ; 75 ppm (OEL (NZ))TWA value 205 mg/m³ ; 50 ppm (OEL (NZ))

n-Butyl acetate, 123-86-4;

STEL value 150 ppm (ACGIHTLV)

TWA value 50 ppm (ACGIHTLV)

TWA value 713 mg/m³ ; 150 ppm (OEL (NZ))STEL value 950 mg/m³ ; 200 ppm (OEL (NZ))

xylene, 1330-20-7;

TWA value 100 ppm (ACGIHTLV)

STEL value 150 ppm (ACGIHTLV)

TWA value 217 mg/m³ ; 50 ppm (OEL (NZ))

1,6-hexamethylene diisocyanate, 822-06-0;

TWA value 0.005 ppm (ACGIHTLV)

TWA value 0.02 mg/m³ (OEL (NZ))

Measured as: NCO

Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

STEL value 0.07 mg/m³ (OEL (NZ))

Measured as: NCO

Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

Personal protective equipment

Respiratory protection:

full face mask with AB2P3 class combination filter When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. In situations where dust may occur use appropriate certified respirators. Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet (sanding/ flatting) should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used. Use A1P2 breathing-protection half mask in case of contact with aerosols.

Hand protection:

Further information on penetration time is available from the manufacturer of the glove. Data are based on information from the glove manufacturer, the raw material manufacturer or according to specifics of the product components.

The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).

Follow manufacturer's advice on use, storage, maintenance and replacement of gloves.

The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).

Wear protective gloves. Any chemical protection glove certified according to EN 374 is suitable: e.g. nitrile gloves - material thickness: 1,25 mm

Eye protection:

Eye protection not required., Required when there is a risk of eye contact.

Body protection:

chemical-resistant disposable coveralls, Personnel should wear antistatic, flame-retardant clothing made of natural fibres and/or heat-resistant synthetic fibres.

General safety and hygiene measures:

Under cool dry conditions, it is possible for the isocyanate to remain unreacted in the paint film for up to 30 hours after application. The country-specific occupational exposure limits applicable to the substances specified in section 3 must be taken into account. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. Respiratory protective equipment should be worn by spray booth operatives (see "Personal protection" below). If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn.

9. Physical and Chemical Properties

Form:	liquid
Colour:	colourless
Odour:	specific
pH value:	not applicable
Melting point:	not determined
onset of boiling:	114.00 °C

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Flash point:	> 23 °C	
Flammability (solid/gas):	Flammable liquid and vapour.	
Lower explosion limit:	36 g/m ³	
Ignition temperature:	> 200.00 °C	
Self heating ability:	It is not a substance capable of spontaneous heating.	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	21.50 hPa (20 °C)	
	(50 °C)	
	not determined	
Density:	1.008 g/cm ³ (20 °C)	
Miscibility with water:	immiscible	
Viscosity, kinematic:	6.6 mm ² /s (20 °C)	
	(40 °C)	
Flow time:	> 29 s	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame.

Substances to avoid:

Keep away from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts slowly with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

Hazardous reactions:

No hazardous reactions if stored and handled as prescribed/indicated.

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

When exposed to high temperatures hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates may be produced.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated and prolonged exposure to solvents at levels significantly above OELs may lead to the development of long-lasting central nervous system disorders such as chronic toxic encephalopathy, signs of toxicity include changes in behaviour and memory. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Of moderate toxicity after short-term inhalation.

Information on: Benzoic acid

Experimental/calculated data:

LD50 rat (oral): 2,565 mg/kg (Directive 84/449/EEC, B.1)

Information on: ethylbenzene

Experimental/calculated data:

LD50 rat (oral): 3,500 mg/kg

Literature data.

Information on: Ethyl 3-ethoxypropionate

Experimental/calculated data:

LD50 rat (oral): approx. 5,000 mg/kg (OECD Guideline 401)

Information on: xylene

Experimental/calculated data:

LD50 rat (oral): 3,523 mg/kg (similar to OECD guideline 401)

Information on: ethylbenzene

Experimental/calculated data:

LD50 rabbit (dermal): 15,354 mg/kg

Literature data.

Irritation**Assessment of irritating effects:**

Eye contact causes irritation. Skin contact causes slight irritation.

The liquid splashed in the eyes may cause irritation and reversible damage.

Respiratory/Skin sensitization**Assessment of sensitization:**

Sensitization after skin contact possible.

Germ cell mutagenicity**Assessment of mutagenicity:**

Based on available Data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:

Based on available Data, the classification criteria are not met.

Reproductive toxicity

Assessment of reproduction toxicity:

Based on available Data, the classification criteria are not met.

Developmental toxicity

Assessment of teratogenicity:

Based on available Data, the classification criteria are not met.

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 exposure may affect certain organs.

Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information

Based on the properties of the isocyanate components and considering toxicological data on similar product, this product may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the occupational exposure limit. Repeated inhalation may lead to a permanent respiratory disability.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

Mobility

Assessment transport between environmental compartments:

No data available.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):
Biological degradability of hazardous substances mentioned in section 3:

Information on: ethylbenzene

Elimination information:

70 - 80 % TIC of the ThIC (28 d) (ISO 14593) (aerobic, activated sludge) Readily biodegradable (according to OECD criteria).

Information on: n-Butyl acetate

Elimination information:

80 % BOD of the ThOD (5 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, municipal sewage treatment plant effluent)

Information on: Ethyl 3-ethoxypropionate

Elimination information:

100 % CO₂ formation relative to the theoretical value (28 d) (Directive 84/449/EEC, C.5) (aerobic, activated sludge, domestic, non-adapted) Readily biodegradable.

Information on: xylene

Elimination information:

87.8 % BOD of the ThOD (28 d) (OECD Guideline 301 F) (aerobic, activated sludge, domestic, non-adapted)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulation potential

Bioaccumulation potential:

No data available.

13. Disposal Considerations

Observe national and local legal requirements.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

Dispose of in accordance with national, state and local regulations.

14. Transport Information

Domestic transport:

Packing group:	III
ID number:	UN 1263
Transport hazard class(es):	3
Proper shipping name:	PAINT

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Hazchem Code:3Y
IERG Number:14

Sea transport

IMDG

Packing group: III
ID number: UN 1263
Transport hazard class(es): 3
Marine pollutant: NO
Proper shipping name: PAINT

Air transport

IATA/ICAO

Packing group: III
ID number: UN 1263
Transport hazard class(es): 3
Proper shipping name: PAINT

15. Regulatory Information

Other regulations

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

HSNO Approval Number HSR002662
Surface Coatings and Colourants (Flammable) Group Standard 2017
HSNO Classification: 3.1C 6.1D 6.1E 6.3B 6.4A 6.5B 6.9B 9.1D

A certified handler is not required for the handling of this substance.

Tracking requirements do not apply to this substance.

Registration status:

NZIOC, NZ released / listed

16. Other Information

For multi-pack systems observe material safety data sheets of all components. Restricted to professional users.

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. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.