We create chemistry

Safety data sheet

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

Product name: **H 2500 5L**

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

H 2500 5L

SC20-0250 RM05
50418383

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

Recommended use
Car refinishing products

1.3. Details of the supplier of the safety data sheet

R-M Automotive Refinish Ltd
Unit 101 10th Avenue
Deeside Ind. Park, Flintshire CH5 2UA
Great Britain
E-mail address:
Product-Safety-Coatings@basf.com

1.4. Emergency telephone number

+49 180 2273 112

Section 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

- Flam. Liq. 3, H226 Flammable liquid and vapour.
- Acute Tox. 4, H332 Harmful if inhaled.
- Skin Sens. 1, H317 May cause an allergic skin reaction.
- STOT SE 3, H335 May cause respiratory irritation.
- Aquatic Chronic 3, H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

According to Regulation (EC) No 1272/2008 [CLP]

Hazard pictogram:

Signal word:
Warning

Hazard statements:

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements (Response):

P312	Call a POISON CENTER or doctor/physician if you feel unwell.

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.

Hazard determining component(s) for labelling:
hexamethylene-di-isocyanate
isophorone diisocyanate (IPDI) polymer
HDI-oligomer (trimer)

Labeling of special preparations:

EUH204	Contains isocyanates. May produce an allergic reaction.
EUH208	Contains hexamethylene-di-isocyanate. May produce an allergic reaction.

2.3. Other hazards

The product may be a skin and respiratory sensitizer. It is also a skin irritant and repeated contact may increase this effect.

Section 3: Composition/Information on Ingredients

3.1. Substances

not applicable

3.2. Mixtures

Chemical nature

polyisocyanate, organic solvent

Hazardous ingredients
according to Regulation (EC) No 1272/2008

CAS No. EC No. Registration No. INDEX No.
% (weight)
Class, Category, Hazard Statement

HDI-oligomer (trimer)
28182-81-2 500-060-2 01-2119485796-17-XXXX
75,0 - 100,0
Acute Tox. 4, H332
Skin Sens. 1, H317
STOT SE 3, H335

butylglycol acetate
112-07-2 203-933-3 01-2119475112-47-XXXX 607-038-00-2
5,0 - < 7,0
Acute Tox. 4, H302
Acute Tox. 4, H312
Acute Tox. 4, H332

Naphtha (petroleum), light hydrocracked
64741-69-1 265-071-4 649-348-00-0
3,0 - < 5,0
Flam. Liq. 3, H226
STOT SE 3, H336
Asp. Tox. 1, H304
Aquatic Chronic 2, H411

methyl isoamyl ketone
110-12-3 203-737-8 01-2119472300-51-XXXX 606-026-00-4
3,0 - < 5,0
Flam. Liq. 3, H226
Acute Tox. 4, H332

isophorone diisocyanate (IPDI) polymer

53880-05-0 01-2119488734-24-XXXX
2,5 - < 3,0
Skin Sens. 1, H317
STOT SE 3, H335

hexamethylene-di-isocyanate
822-06-0 212-485-8 01-2119457571-37-XXXX 615-011-00-1
0,2 - < 0,3
Acute Tox. 1, H330
Acute Tox. 4, H302
Skin Corr./Irrit. 2, H315
Eye Dam./Irrit. 2, H319
Resp. Sens. 1, H334
Skin Sens. 1, H317
STOT SE 3, H335

For the classifications not written out in full in this section the full text can be found in section 16.

Section 4: First Aid Measures

4.1. Description of first aid measures

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

If inhaled
Remove patient to fresh air and seek medical assistance. Keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in 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 and seek medical advice.

On ingestion
If swallowed, rinse mouth with plenty of water (only if the person is conscious) and seek medical advice immediately. Keep the injured person at rest. Do not induce vomiting.

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

The most important known symptoms and effects are described in the labelling (see

section 2) and/or in section 11.

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

No data available.

Section 5: Fire-Fighting Measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Special protective equipment
Appropriate breathing apparatus may be required.

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

Section 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

Exclude sources of ignition and ventilate the area. Avoid breathing vapours.

6.2. Environmental precautions

Do not allow to enter drains or watercourses. 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.

6.3. Methods and material for containment and cleaning 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).

6.4. Reference to other sections

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

Section 7: Handling and Storage

7.1. Precautions for safe handling

Instructions for Safe Handling
Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits.

Avoid skin and eye contact. Avoid inhalation of vapour and spray mist.

Avoid inhalation of dust from sanding.

Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws.

Isolate from sources of heat, sparks and open flame. Do not use any sparking tools.

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!).

The Manual Handling Operations Regulations 90/269/EEC may apply to the handling of packages of this product. Refer to the guide weight indicated on the package when carrying out assessments. To assist employers, the following method of calculating the weight for any pack size is given. Take the pack size volume in litres and multiply this figure by the specific gravity value given in Section 9. This will give the net weight of the coating in kilograms. Allowance will then have to be made for the immediate packaging to give an approximate gross weight.

Information on Fire and Explosion Protection
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 heating to more than 50 °C. Provide adequate ventilation, if necessary by means of local exhaust ventilation at the work place. Exhaust ventilation required during spray application.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for Storage Areas and Containers
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 vessel. Close containers carefully once opened and store upright in order to prevent any leakage. No smoking. Prevent unauthorized access.

Information on Combined Storage
Keep away from strongly acid and stongly alkaline materials, from oxidizing agents, amines, alcohols and water.

Additional Information on Storage Conditions
Always keep in containers of same material as the original one. Observe label precautions. Store in a dry, well ventilated place away from sources of heat and direct sunlight. Keep away from sources of ignition.

Storage temperature : 5 - 35 °C

Precautions should be taken to minimise exposure to atmospheric humidity or water: carbon dioxide will be formed which in closed containers can result pressurisation.

7.3. Specific end use(s)

Detailed information can be gained from the relevant technical data sheets.

Section 8: Exposure Controls/personal protection

Persons with a history of allergies, asthma, chronic or recurrent respiratory disease must not be employed in any process in which preparations of this type are used.
People who process this product should undergo lung function tests at regular intervals.

8.1. Control parameters

Occupational Exposure Limits

CAS No.		limit values ml/m3 (ppm)	mg/m3
methyl isoamyl ketone			
110-12-3	WEL-L	20	95
	WEL-S	100	475
butylglycol acetate			
112-07-2	WEL-L	20	133
	WEL-S	50	332
hexamethylene-di-isocyanate			
822-06-0	WEL-L	-	0,02
	WEL-S	-	0,07

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Spraying of sensitizer containing products should only be carried out in suitable spray booths or enclosures equipped with effective exhaust ventilation to prevent spray mist escaping into the work areas outside the spray booth. Respiratory protective equipment should be worn by spray booth operatives (see "Personal protection" below).

Under cool dry conditions, it is possible for the isocyanate to remain unreacted in the paint film for up to 30 hours after application.

Personal protective equipment

All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the Personal Protective Equipment at Work Regulations 1992 and the COSHH Regulations.

Respiratory Protection
When workers are facing concentrations above the occupational exposure limits they must 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.

Suitable respiratory protection: e.g. half-mask with A2P2 class combination filter

Hand Protection
Wear protective gloves.
Any chemical protection glove certified according to EN 374 is suitable: e.g. butyl rubber gloves

Material thickness: = 0,5 mm

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).

Eye Protection
Required when there is a risk of eye contact.

Use tight-fitting protective goggles.

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

Wear protective clothing. Protective clothing required: chemical-resistant disposable coveralls

Environmental exposure controls

See section 7 and 12

Section 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical state	: liquid
Colour	: colourless
Odour	: specific
pH	: n.a.
Change in physical state	
Boiling temperature/range	: 116 °C
Melting point/range	: n.d.a.
Flash point	: +023 °C ISO 3679
Ignition temperature	: > 200 °C solvents
Explosion limits, lower	: > 35 g/m3
upper	: n.d.a.
Vapour pressure	: 20,0 hPa at 20°C
Density	: 1,090 g/cm3 at 20°C
Solubility in water	: immiscible
Viscosity	: 195,5 mm2/s

9.2. Other information

Flow time	: >030/6 s at 20°C ISO 2431

Section 10: Stability and Reactivity

10.1. Reactivity

Stable under recommended storage and handling conditions (see section 7).

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

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

10.4. Conditions to avoid

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

10.5. Incompatible materials

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.

10.6. Hazardous decomposition products

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.

Section 11: Toxicological Information

11.1. Information on toxicological effects

The mixture has been assessed following regulation (EC) No 1272/2008. See sections 2 and 3 for details.

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.

Acute toxicity
Harmful if inhaled.

Skin corrosion/irritation
Based on available Data, the classification criteria are not met.

Serious eye damage/eye irritation

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

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

Respiratory sensitization/skin
May cause an allergic skin reaction.

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

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

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

Specific target organ toxicity - single exposure
May cause respiratory irritation.

Specific target organ toxicity - repeated exposure
Based on available Data, the classification criteria are not met.

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

Other 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.

Section 12: Ecological Information

There are no test results available for this product.

The mixture has been assessed following regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See sections 2 and 3 for details.

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

n.d.a.

12.3. Bioaccumulative potential

n.d.a.

12.4. Mobility in soil

n.d.a.

12.5. Results of PBT and vPvB assessment

According to Annex XIII 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/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6. Other adverse effects

The product should not be allowed to enter drains or water courses.

The Air Pollution Control requirements of regulations made under the Environmental Protection Act may apply to the use of this product.

Section 13: Disposal Considerations

13.1. Waste treatment methods

Observe national and local legal requirements.

Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act. Using information provided in this data sheet, advice should be obtained from the Environment Agency whether the special waste regulations apply.

European list of wastes

Commission Decision 2000/532/EC dated 3rd May, 2000

08 01 11*
Waste from the manufacture, formulation, supply and use (MFSU) and removal of paint and varnish;
waste paint and varnish cantaining organic solvents or other dangerous substances

Any waste marked with an asterisk (*) is considered as a hazardous waste pursuant to Directive 91/689/EEC on hazardous waste.

Contaminated packaging

Recommendation
Containers which are not properly emptied must be disposed pursuant to Directive 91/689/EEC

Residues in empty containers should be neutralised with decontaminant (see section 6).

Section 14: Transport Information

14.1. UN number

Transport by Road or Rail (ADR/RID):
1263

Sea Transport (IMDG):
1263

Air Transport (IATA/ICAO):
1263

Inland waterway transport (ADN):
not evaluated

14.2. UN proper shipping name

Transport by Road or Rail (ADR/RID):
PAINT RELATED MATERIAL

Sea Transport (IMDG):
PAINT RELATED MATERIAL

Air Transport (IATA/ICAO):
PAINT RELATED MATERIAL

Inland waterway transport (ADN):
not evaluated

14.3. Transport hazard class(es)

Transport by Road or Rail (ADR/RID):
3

Sea Transport (IMDG):
3

Air Transport (IATA/ICAO):
3

Inland waterway transport (ADN):
not evaluated

14.4. Packing group

Transport by Road or Rail (ADR/RID):
III

Sea Transport (IMDG):
III

Air Transport (IATA/ICAO):
III

Inland waterway transport (ADN):
not evaluated

14.5. Environmental hazards

Transport by Road or Rail (ADR/RID):
none

Sea Transport (IMDG):
none

Inland waterway transport (ADN):
not evaluated

14.6. Special precautions for user

Transport by Road or Rail (ADR/RID):
Tunnel code: D/E
Hazard number 30
Special provision 640 E

Sea Transport (IMDG):
EMS-Nr: F-E, S-E

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not evaluated

Section 15: Regulatory Information

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

Information pursuant to VOC Directive 1999/13/EC (for product as supplied)
Volatile organic solvents: 15 %
VOC : 15 %
Volatile CMR substances : n.a.

Details relating to the VOC Directive 2004/42/EC
Subcategory as indicated in Annex IIB : n.a.
Limit value for maximum VOC content
as specified in Annex IIB : n.a.

National Regulations
The Control of Substances Hazardous to Health Regulations 2002
The Manual Handling Operations Regulations 1992
Storage of Packaged Dangerous Substances, HS(G)71
The Environmental Protection Act
The Highly Flammable Liquids and Liquefied Petroleum Gases Regulations 1972 (SI 1972:917)
Storage of Flammable Liquids in Containers, HS(G)51
Your Health and 2 pack Spray Paints, MS(B)8, HSE
HSE Guidance Note EH 16

15.2. Chemical safety assessment

Chemical Safety Assessment not required

Section 16: Other Information

Restricted to professional users.

This safety data sheet is prepared in accordance with Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010.

The information contained in this safety data sheet does not relieve users from the obligation to carry out their own risk assessment according to Directive 98/24/EC.

Full text of hazard statements for components listed in section 2 and 3

Acute Tox.
Acute toxicity
Aquatic Chronic
Hazardous to the aquatic environment - chronic
Asp. Tox.
Aspiration hazard
Eye Dam./Irrit.

Serious eye damage/eye irritation
Flam. Liq.
Flammable liquids
Resp. Sens.
Respiratory sensitization
STOT SE
Specific target organ toxicity - single exposure
Skin Corr./Irrit.
Skin corrosion/irritation
Skin Sens.
Skin sensitization

H226
Flammable liquid and vapour.
H302
Harmful if swallowed.
H304
May be fatal if swallowed and enters airways.
H312
Harmful in contact with skin.
H315
Causes skin irritation.
H317
May cause an allergic skin reaction.
H319
Causes serious eye irritation.
H330
Fatal if inhaled.
H332
Harmful if inhaled.
H334
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335
May cause respiratory irritation.
H336
May cause drowsiness or dizziness.
H411
Toxic to aquatic life with long lasting effects.

For multi-pack systems observe material safety data sheets of all components.

Explanation of abbreviations:
n.d.a. no data available
n.a. not applicable

WEL-L Time Weighted Average (TWA)
WEL-S Short Term Exposure Limit (STEL)

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.