

SAFETY DATA SHEET

9202 Rust-O-Thane® Activator

1. Identification of the preparation and of the company

Product name and/or code : 9202 Rust-O-Thane® Activator
Product use : Andrews Coatings Ltd. Carver Building, Littles Lane
Manufacturer : Wolverhampton, West Midlands, WV1 1JY
 Telephone Number: 01902 429190, Fax Number: 01902 426574
Emergency phone: Email: sales@andrewscoatings.co.uk

2. Composition/information on ingredients

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC.

Chemical name*	CAS no.	%	EC nr.	Classification
United Kingdom (UK)				
Hexamethylene-di-isocyanate prepolymer	28182-81-2	50 - 100	500-060-2	R43
Hexamethylene-di-isocyanate	822-06-0	0 - 1	212-485-8	T; R23 Xi; R36/37/38 R42/43
See section 16 for the full text of the R-phrases declared above				

Occupational exposure limits, if available, are listed in section 8.

3. Hazards identification

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : R43
 R52/53
Human health hazards : May cause sensitization by skin contact.
Environmental hazards : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Additional warning phrases : Contains isocyanates. See information supplied by the manufacturer. This information is provided by the current Safety Data Sheet.

4. First aid measures

First aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice.
Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use solvents or thinners.
Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.
Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.

5. Fire-fighting measures

Extinguishing media : Recommended: alcohol-resistant foam, CO₂, powders, water spray or mist.
 Not to be used : water jet.
Recommendations : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to sewers or waterways.
Hazardous combustion products : No specific data.

6. Accidental release measures

- Personal precautions** : Exclude sources of ignition and ventilate the area. Refer to protective measures listed in sections 7 and 8.
- Spill** : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Place in a suitable container. The contaminated area should be cleaned immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts) and concentrated (d: 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts) and water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in an unsealed container. Once this stage is reached, close container and dispose of according to local regulations (see section 13). Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Examination of lung function should be carried out on a regular basis on persons spraying this preparation.

- Handling** : Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits.

Keep container tightly closed. Precautions should be taken to minimize exposure to atmospheric humidity or water. CO₂ will be formed, which, in closed containers, could result in pressurization. Care should be taken when re-opening partly-used containers. Keep away from heat, sparks and flame.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.

Put on appropriate personal protective equipment (see section 8).

Comply with the health and safety at work laws.

- Storage** : Store in accordance with local regulations. Observe label precautions. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep away from heat and direct sunlight.

Keep away from: oxidizing agents, strong alkalis, strong acids, amines, alcohols, water. No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not empty into drains..

8. Exposure controls/personal protection

Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Examination of lung function should be carried out on a regular basis on persons spraying this preparation.

- Engineering measures** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. Air-fed protective respiratory equipment must be worn by the spray operator, even when good ventilation is provided. In other operations, if local exhaust ventilation and good general extraction are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn. (See Personal Protection.)

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
United Kingdom (UK) Hexamethylene-di-isocyanate	EH40-WEL (United Kingdom (UK), 1/2005). Notes: As NCO STEL: 0,07 mg/m ³ , 0 times per shift, 15 minute(s). Form: All forms TWA: 0,02 mg/m ³ , 0 times per shift, 8 hour(s). Form: All forms

Exposure controls

8. Exposure controls/personal protection

- Occupational exposure controls** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Respiratory protection** : When spraying wear suitable respiratory equipment : supplied-air respirator (EN 138). By other operations than spraying, in well ventilated areas, air-fed respirators could be replaced by a combination charcoal filter and particulate filter mask. (EN 140) .
- Hand protection** : >8 hours (breakthrough time): For prolonged or repeated handling, use the following type of gloves: nitrile rubber (EN 374-1) .
- Eye protection** : Recommended: safety glasses with side-shields (EN 166) .
- Skin protection** : Recommended: disposable overall (EN 1149-1) .
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Environmental exposure controls

Do not allow to enter drains or watercourses.

9. Physical and chemical properties

- Physical state** : Liquid.
- Odor** : Odorless.
- Color** : Yellowish.
- Flash point** : Closed cup: >250°C (482°F).
- Boiling point** : Decomposition temperature: >200°C (392°F)
- Vapor pressure** : < 0.0001 hPa (at 20°C)
- Volatility %** : 0% (v/v), 0% (w/w)
- VOC content w/w** : 0 (g/l).
- Relative density** : 1,13
- Viscosity** : Dynamic: 3300 mPa·s (3300 cP)
- pH** : 8

10. Stability and reactivity

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

Hazardous decomposition products: smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide.

Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids, amines, alcohols, water.

Uncontrolled exothermic reactions occur with amines and alcohols.

The product reacts slowly with water, resulting in the production of carbon dioxide. In closed containers, pressure buildup could result in distortion, expansion and, in extreme cases, bursting of the container.

11. Toxicological information

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

Exposure to component solvent vapor 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 effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

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. Repeated or prolonged contact with irritants may cause dermatitis. If splashed in the eyes, the liquid may cause irritation and reversible damage.

Contains Hexamethylene-di-isocyanate prepolymer. May produce an allergic reaction.

Acute toxicity

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11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Hexamethylene-di-isocyanate prepolymer	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	18500 mg/m ³	1 hours
Hexamethylene-di-isocyanate	LD50 Dermal	Rabbit	593 mg/kg	-
	LD50 Dermal	Rabbit	570 uL/kg	-
	LD50 Oral	Rat	738 mg/kg	-
	LD50 Oral	Rat	710 uL/kg	-
	LCLo Inhalation Vapor	Rat	60 mg/m ³	4 hours

12. Ecological information

There is no data available on the preparation itself.
Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See sections 2 and 15 for details.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Hexamethylene-di-isocyanate prepolymer	OECD 203 203 Fish, Acute Toxicity Test	Acute LC50 >100 mg/l	Fish - Zebra barbel (brachydanio rerio)	96 hours

Ecological information

Biodegradability

Product/ingredient name	Test	Result	Dose	Inoculum
Hexamethylene-di-isocyanate	OECD 301F 301F Ready Biodegradability - Manometric Respirometry Test	42 % - 10 days	-	-

Product/ingredient name

Hexamethylene-di-isocyanate prepolymer
Hexamethylene-di-isocyanate

Aquatic half-life

-
-

Photolysis

0%; < 28 day(s).
-

Biodegradability

Not readily
Not readily

Bioaccumulative potential

Product/ingredient name

Hexamethylene-di-isocyanate

LogP_{ow}

1.08

BCF

-

Potential

low

13. Disposal considerations

Do not allow to enter drains or watercourses. Residues in empty containers should be neutralized with a decontaminant (see section 6).

Dispose of according to all federal, state and local applicable regulations.

European waste catalogue (EWC) : The European Waste Catalogue classification of this product, when disposed of as waste, is: 08 01 15* aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances. If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

Hazardous waste : Yes.

14. Transport information

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.


International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	--	-	-	-		Remarks Not controlled under ADR (Europe).
IMDG Class	--	-	-	-		Remarks Not controlled under IMDG.
IATA Class	--	-	-	-		Remarks Not controlled under IATA.

PG* : Packing group

This product is not regulated for carriage according to ADR/RID, IMDG, ICAO/IATA.

15. Regulatory information

- EU regulations** : The product is classified and labelled for supply in accordance with the Directive 1999/45/EC as follows:
- Hazard symbol(s)** :  Irritant
- Risk phrases** : R43- May cause sensitization by skin contact.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Safety phrases** : S23- Do not breathe spray.
S36/37- Wear suitable protective clothing and gloves.
S51- Use only in well-ventilated areas.
S61- Avoid release to the environment. Refer to special instructions/safety data sheet.
- Contains** : Hexamethylene-di-isocyanate prepolymer
- Europe inventory** : **Europe inventory:** All components are listed or exempted.
- Other EU regulations**
- Additional warning phrases** : Contains isocyanates. See information supplied by the manufacturer. This information is provided by the current Safety Data Sheet.
- CN code** : 3909 30 00
- National regulations**
- Industrial use** : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

16. Other information

- CEPE Classification** : 5
- Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK)** : R23- Toxic by inhalation.
R36/37/38- Irritating to eyes, respiratory system and skin.
R43- May cause sensitization by skin contact.
R42/43- May cause sensitization by inhalation and skin contact.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information in this Safety Data Sheet is required pursuant to EU Directive 91/155/EEC and its amendments.

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties. ©Copyright by Rust-Oleum Netherlands B.V. / Martin Mathys B.V.

