



The Chemical Company

Safety Data Sheet

NP1 ALU GRY

Revision date : 2012/06/07
Version: 2.0

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1. Product and Company Identification

Company
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

2. Hazards Identification

Emergency overview

WARNING:

SENSITIZATION CAN OCCUR IN SOME INDIVIDUALS, LEADING TO ASTHMA-LIKE SPASMS OF THE BRONCHIAL TUBES AND DIFFICULTY BREATHING. INDIVIDUALS WITH A HISTORY OF RESPIRATORY ILLNESS, ASTHMATIC CONDITIONS, EYE DAMAGE OR TDI SENSITIZATION SHOULD NOT BE EXPOSED TO THIS PRODUCT. TDI IS INCLUDED IN THE NTP ANNUAL REPORT ON CARCINOGENS. RESULTS FROM A TDI HEALTH STUDY INDICATE THAT OVEREXPOSURE TO A RESPIRATORY IRRITANT, RESULTING IN LOWER RESPIRATORY TRACT SYMPTOMS COULD INCREASE THE RISKS OF DEVELOPING ASTHMA-LIKE REACTIONS FROM SUBSEQUENT TDI EXPOSURE.

Irritating to eyes, respiratory system and skin.

CONTAINS MATERIAL WHICH MAY CAUSE CANCER.

Avoid contact with the skin, eyes and clothing.

State of matter: solid

Colour: pigmented

Odour: slight odour

Potential health effects

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

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

Irritation / corrosion:

Irritating to eyes, respiratory system and skin.

Sensitization:

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

Chronic toxicity:

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Carcinogenicity: Indication of possible carcinogenic effect in animal tests.

Repeated dose toxicity: Prolonged exposure may cause chronic effects.
Overexposure may cause CNS depression including headache, dizziness, nausea and loss of consciousness.

Reproductive toxicity: The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Genotoxicity: The substance was mutagenic in various bacterial test systems; however, a mutagenic effect could not be confirmed in mammalian cell culture.

Signs and symptoms of overexposure:

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

Potential environmental effects

Aquatic toxicity:

Acutely harmful for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Degradation / environmental fate:

The product is unstable in water. The elimination data also refer to products of hydrolysis.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
1317-65-3	>= 10.0 - <= 30.0 %	Limestone
14807-96-6	>= 3.0 - <= 7.0 %	talc
13463-67-7	>= 3.0 - <= 7.0 %	Titanium dioxide
53306-54-0	>= 1.0 - <= 5.0 %	bis(2-propylheptyl) phthalate
8052-41-3	>= 1.0 - <= 5.0 %	Stoddard solvent
1305-78-8	>= 0.5 - <= 1.5 %	calcium oxide
91-08-7	>= 0.1 - <= 1.0 %	toluene-2,6-diisocyanate
584-84-9	>= 0.1 - <= 1.0 %	toluene-2,4-diisocyanate

4. First-Aid Measures

General advice:

First aid personnel should pay attention to their own safety. Remove contaminated clothing.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

If on skin:

Wash thoroughly with soap and water. Under no circumstances should organic solvent be used. If irritation develops, seek medical attention.

If in eyes:

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

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting unless told to by a poison control center or doctor.

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Note to physician

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

5. Fire-Fighting Measures

Flash point:	89 °C 192 °F	(ASTM D3278)
Autoignition:		Non-flammable. not applicable
Lower explosion limit:	1 %(V)	Information applies to the solvent.
Upper explosion limit:	6 %(V)	Information applies to the solvent.
Flammability:	not highly flammable	

(UN Test N.1 (ready combustible solids))

Suitable extinguishing media:
foam, water spray, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:
water jet

Hazards during fire-fighting:
carbon dioxide, carbon monoxide, harmful vapours, nitrogen oxides, fumes/smoke, carbon black

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions:
Use personal protective clothing. Handle in accordance with good building materials hygiene and safety practice.

Environmental precautions:
Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Cleanup:
For small amounts: Sweep/shovel up. Dispose of absorbed material in accordance with regulations.
For large amounts: Sweep/shovel up. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Handling

General advice:
Avoid skin contact. No special measures necessary provided product is used correctly.

Protection against fire and explosion:
Keep away from sources of ignition - No smoking. The relevant fire protection measures should be noted.

Storage

General advice:

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Keep only in the original container in a cool, well-ventilated place. Protect from direct sunlight. Store protected against freezing.

8. Exposure Controls and Personal Protection

Components with workplace control parameters

Stoddard solvent	OSHA	PEL 500 ppm 2,900 mg/m ³ ;
	ACGIH	TWA value 100 ppm ;
Titanium dioxide	OSHA	PEL 15 mg/m ³ Total dust ;
	ACGIH	TWA value 10 mg/m ³ ;
calcium oxide	OSHA	PEL 5 mg/m ³ ;
	ACGIH	TWA value 2 mg/m ³ ;
talc	OSHA	TWA value 20 millions of particles per cubic foot of air ; TWA value 2.4 millions of particles per cubic foot of air Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.1 mg/m ³ Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.3 mg/m ³ Total dust ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.
	ACGIH	TWA value 2 mg/m ³ Respirable fraction ; The value is for particulate matter containing no asbestos and <1% crystalline silica.
toluene-2,6-diisocyanate	ACGIH	TWA value 0.005 ppm ; STEL value 0.02 ppm ;
toluene-2,4-diisocyanate	OSHA	CLV 0.02 ppm 0.14 mg/m ³ ;
	ACGIH	TWA value 0.005 ppm ; STEL value 0.02 ppm ;
Limestone	OSHA	PEL 5 mg/m ³ Respirable fraction ; PEL 15 mg/m ³ Total dust ;

Personal protective equipment

Hand protection:

Chemical resistant protective gloves

Eye protection:

Safety glasses with side-shields.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Avoid contact with the skin, eyes and clothing. No special measures necessary if stored and handled correctly. Handle in accordance with good building materials hygiene and safety practice. 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. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).

9. Physical and Chemical Properties

Form: paste
Odour: slight odour

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Colour:	pigmented	
pH value:		not applicable
Boiling point:		not applicable
Density:	approx. 1.20 g/cm ³	(20 °C)
Solubility in water:		(15 °C) insoluble
Miscibility with water:		(20 °C) not (e.g. <10%)
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

10. Stability and Reactivity

Conditions to avoid:

See MSDS section 7 - Handling and storage.

Substances to avoid:

strong acids, strong bases, strong oxidizing agents

Hazardous reactions:

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

Decomposition products:

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

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

Oxidizing properties:

not fire-propagating

11. Toxicological information

Acute toxicity

Information on: Stoddard solvent

Assessment of acute toxicity:

Aspiration may result in chemical pneumonitis, which may be fatal.

Information on: toluene-2,6-diisocyanate

Assessment of acute toxicity:

Of very high toxicity after short-term inhalation. In animal studies the substance is virtually nontoxic after a single ingestion. In animal studies the substance is virtually nontoxic after a single skin contact.

EU-classification

Information on: toluene-2,4-diisocyanate

Assessment of acute toxicity:

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

Irritation / corrosion

Information on: calcium oxide

Assessment of irritating effects:

Corrosive! Damages skin and eyes.

Information on: toluene-2,6-diisocyanate

Assessment of irritating effects:

Irritating to eyes and skin.

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Information on: toluene-2,4-diisocyanate
Assessment of irritating effects:
Irritating to eyes and skin.

Sensitization

Information on: toluene-2,6-diisocyanate
Assessment of sensitization:
The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Information on: toluene-2,4-diisocyanate
Assessment of sensitization:
The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Repeated dose toxicity

Information on: talc

Information on: bis(2-propylheptyl) phthalate
Assessment of repeated dose toxicity:
Repeated exposure to high doses of the substance causes reversible liver changes in rodents. According to present knowledge, these effects do not occur in man.

Information on: Stoddard solvent
Assessment of repeated dose toxicity:
Overexposure may cause liver and kidney toxicity. Repeated exposures may result in pulmonary congestion.

Information on: toluene-2,4-diisocyanate
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.

Genetic toxicity

Information on: toluene-2,6-diisocyanate
The substance was mutagenic in various test systems with bacterias and cell cultures; however, these results could not be confirmed in tests with mammals. Literature data.

Information on: toluene-2,4-diisocyanate
The substance was mutagenic in various test systems with bacterias and cell cultures; however, these results could not be confirmed in tests with mammals. Literature data.

Carcinogenicity

Information on: bis(2-propylheptyl) phthalate
In long-term studies in rodents exposed to high doses, a tumorigenic effect was found; however, these results are thought to be due to a rodent-specific liver effect that is not relevant to humans. The product has not been tested. The statement has been derived from products of a similar structure or composition.

Information on: Titanium dioxide
IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term studies in rats in which the substance was given by inhalation, a carcinogenic effect was observed. Tumors were only observed in rats after chronic inhalative exposure to high concentrations which caused sustained lung inflammation. In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. Dermal exposure is not expected to be carcinogenic.

Information on: toluene-2,6-diisocyanate
IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans).

Information on: toluene-2,4-diisocyanate
IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). NTP listed carcinogen

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Other Information:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

Information on: Stoddard solvent

In tests with mammals a central nervous system disorder was observed.

12. Ecological Information

Degradability / Persistence Biological / Abiological Degradation

Evaluation: Poorly biodegradable.

Poorly biodegradable.

The product is unstable in water. The elimination data also refer to products of hydrolysis.

Other adverse effects:

Acutely harmful for aquatic organisms. Do not discharge product into the environment without control. The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with local authority regulations. Do not discharge into drains/surface waters/groundwater.

14. Transport Information

Land transport USDOT

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

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15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

OSHA hazard category:

IARC 1, 2A or 2B carcinogen; NTP listed carcinogen; Chronic target organ effects reported; OSHA PEL established; ACGIH TLV established; Combustible Liquid

EPCRA 311/312 (Hazard categories):

Acute; Chronic; Fire

EPCRA 313:

CAS Number

584-84-9
91-08-7

Chemical name

toluene-2,4-diisocyanate
toluene-2,6-diisocyanate

CERCLA RQ

5000 LBS
1000 LBS
100 LBS

CAS Number

7664-38-2
108-88-3
108-90-7; 584-84-9;
91-08-7

Chemical name

phosphoric acid
Toluene
chlorobenzene; toluene-2,4-diisocyanate;
toluene-2,6-diisocyanate

State regulations

State RTK

MA, NJ, PA
MA, NJ, PA
NJ, PA
MA, NJ, PA
MA, NJ, PA
MA, NJ, PA
MA, NJ, PA

CAS Number

14807-96-6
13463-67-7
53306-54-0
8052-41-3
1305-78-8
91-08-7
584-84-9

Chemical name

talca
Titanium dioxide
bis(2-propylheptyl) phthalate
Stoddard solvent
calcium oxide
toluene-2,6-diisocyanate
toluene-2,4-diisocyanate

CA Prop. 65:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

16. Other Information

HMIS III rating

Health: 2⁺ Flammability: 2 Physical hazard: 1

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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MSDS Prepared by:

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MSDS Prepared on: 2012/06/07

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