



MATERIAL SAFETY DATA SHEET

NCO CATALYST

Date Prepared: 9/02/08

Supersedes Date: 8/25/08

1. PRODUCT NAME NCO CATALYST

| | |
|-------------------------------|---|
| CHEMICAL FAMILY NAME: | CATALYST |
| U.N. NUMBER: | None |
| U.N. DANGEROUS GOODS CLASS: | Non-Regulated Material |
| SUPPLIER/MANUFACTURER'S NAME: | General Finishes Corp. |
| ADDRESS: | 2462 Corporate Circle, East Troy, WI 53120 USA |
| EMERGENCY PHONE: | 1-262-642-4545 Chemtrec 800-424-9309 |
| BUSINESS PHONE: | 1-800-783-6050 (Product Information) WEB SITE: www.generalfinishes.com |
| DATE OF PREPARATION: | September 25, 2013 |
| DATE OF LAST REVISION: | New |

Chemical Name or Synonym:
ALIPHATIC POLYISOCYANATE IN SOLUTION

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS Reg Number | OSHA Hazard | Percentage |
|--|----------------|-------------|------------|
| HEXANE, 1,6-DIISOCYANATO-, HOMOPOLYMER | 28182-81-2 | Y | < 50 |
| BUTOXYL | 4435-53-4 | Y | ~ 30 |
| ISOPHORONE DIISOCYANATE HOMOPOLYMER | 53880-05-0 | Y | < 20 |
| POLYOXYETHYLENE TRIDECYL ETHER PHOSPHATE | 9046-01-9 | Y | < 7 |
| DIMETHYLCYCLOHEXYLAMINE | 98-94-2 | Y | < 2 |
| ISOPHORONE DIISOCYANATE | 4098-71-9 | Y | < 0.5 |
| HEXANE, 1,6-DIISOCYANATO- | 822-06-0 | Y | < 0.5 |

3. HAZARDS IDENTIFICATION

A. EMERGENCY OVERVIEW:

Physical Appearance and Odor:
colorless to pale yellow viscous liquid, odorless.

Warning Statements:
WARNING!! COMBUSTIBLE LIQUID. EYE, SKIN AND RESPIRATORY TRACT IRRITANT. HARMFUL IF INHALED. POSSIBLE SENSITIZER. REACTS WITH COMMON MATERIALS INCLUDING WATER, ALCOHOLS,

BASES AND AMINES RELEASING LARGE AMOUNTS OF CARBON DIOXIDE. HARMFUL TO AQUATIC ORGANISMS. MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE ENVIRONMENT.

B. POTENTIAL HEALTH EFFECTS:

Acute Eye:

May cause irritation.

Acute Skin:

May be harmful if absorbed through the skin. May cause irritation, May cause allergic reaction.

Acute Inhalation:

Harmful if inhaled. May cause respiratory tract irritation, shortness of breath, wheezing, headache, Possible sensitizer.

Acute Ingestion:

May be harmful if swallowed.

Chronic Effects:

This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens. Asthmatic sensitization can occur from a single large inhalation exposure or from repeated lower inhalation exposures. Strict observation of exposure limits is essential (see Section 8).

4. FIRST AID MEASURES

FIRST AID MEASURES FOR ACCIDENTAL:

Eye Exposure:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Skin Exposure:

In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical attention. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

Inhalation:

If respiratory irritation or distress occurs remove victim to fresh air. Seek medical attention if respiratory irritation or distress continues.

Ingestion:

DO NOT INDUCE VOMITING. If the person is conscious and has no trouble breathing wash out the mouth with water and keep at rest. Do not leave victim unattended. Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Do not give anything by mouth to an unconscious person. IMMEDIATELY obtain medical attention.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE:

Skin contact may aggravate existing skin disease. Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis.

NOTES TO PHYSICIAN:

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Treat symptomatically. No specific antidote available.

5. FIRE FIGHTING MEASURES

FIRE HAZARD DATA:

Flash Point:

76 C (168 F). Flammability Class: COMBUSTIBLE.

Method Used:

Closed cup

Flammability Limits (vol/vol%):**Lower:**

No Data

Upper:

No Data

Extinguishing Media:

Recommended: dry chemical, carbon dioxide, foam, Not recommended: water (unless large excess is possible).

Special Fire Fighting Procedures:

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Cool tightly closed containers exposed to fire with water.

Unusual Fire and Explosion Hazards:

Product will burn under fire conditions. Vapors may travel a considerable distance to a source of ignition and flash back along vapor trail. Under fire conditions, toxic, corrosive fumes are emitted. Reacts with water releasing large amounts of carbon dioxide which may cause pressure build-up in confined spaces.

Hazardous Decomposition Materials (Under Fire Conditions):

oxides of nitrogen
oxides of carbon

6. ACCIDENTAL RELEASE MEASURES

Evacuation Procedures and Safety:

Wear appropriate protective gear for the situation. See Personal Protection information in Section 8. Ventilate closed spaces before entering. Eliminate all sources of ignition until the area is determined to be free from explosion or fire hazards. Evacuate and isolate spill area.

Containment of Spill:

Stop leak if it can be done without risk. Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Cleanup and Disposal of Spill:

Pump any free liquid into a closed but not sealed container to allow for the escape of any CO₂ that forms. Sealing the container may lead to rupture as any contaminated isocyanate reacts. Clean up spill area with a decontaminating solution made up of 50% isopropanol, 45% water and 5% concentrated ammonia solution (% by weight). The solution should cover the area for at least one hour. Collect washings for disposal.

Environmental and Regulatory Reporting:

Do not flush to drain. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures:

< 40 C (104 F)

Handling:

Do not breathe vapors. Do not get on skin or in eyes. Do not ingest. Keep containers closed when not being used. Use nonsparking tools and grounded/bonded equipment and containers when transferring. Store, transfer and handle under a blanket of nitrogen. Before closing partially empty containers, blanket with dry nitrogen. Replace damaged gaskets. Avoid contact with water and excess humidity.

Storage:

Store in tightly closed containers. Store in original container. Store in an area that is cool, dry, well-ventilated, away from ignition sources, Recommended container material: aluminum, steel, Container material to avoid: polystyrene, copper, tin, Certain state and local regulations may limit storage quantities, arrangements and locations. These regulations should be considered for storage and handling of this and any other flammable liquid.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Introductory Remarks:

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Exposure Guidelines:

Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements. The following limits apply to this material, where, if indicated, S=skin and C=ceiling limit:

HEXANE, 1,6-DIISOCYANATO-, HOMOPOLYMER

| | Notes | TWA | STEL |
|--------|-------|-----------|------|
| RHODIA | C | 1 mg/cu m | |

ISOPHORONE DIISOCYANATE

| | Notes | TWA | STEL |
|-------|-------|-----------|----------|
| ACGIH | | 0.005 ppm | |
| OSHA | S | 0.005 ppm | 0.02 ppm |

HEXANE, 1,6-DIISOCYANATO-

| | Notes | TWA | STEL |
|-------|-------|-----------|------|
| ACGIH | | 0.005 ppm | |

Engineering Controls:

Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: general area dilution/exhaust ventilation.

Respiratory Protection:

When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by the appropriate OSHA, WHMIS or ANSI standard(s): Full-face air-purifying respirators are required in work environments where isocyanate airborne concentrations exceed the action level but are significantly lower than the IDLH provided that cartridges are changed daily. Use combination HEPA filter for the polyisocyanate aerosol and an organic vapor cartridge for the solvents used. Install organic vapor cartridge closest to face.

Full-face supplied-air respirators (SAR) are required in work environments where isocyanate airborne concentrations have not been characterized or are expected to exhibit considerable and sudden variations such as in spray type application.

Eye/Face Protection:

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area.

Skin Protection:

Skin contact should be minimized through use of gloves and suitable long-sleeved clothing (i.e., shirts and pants). Consideration must be given both to durability as well as permeation resistance.

Work Practice Controls:

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

- (1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- (2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- (3) Wash exposed skin promptly to remove accidental splashes or contact with this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

Physical Appearance:

colorless to pale yellow viscous liquid.

Odor:

odorless.

pH:

Not Applicable

Specific Gravity:

1.08 at 25 C (77 F).

Water Solubility:

reacts

Melting Point Range:

Not Available

Boiling Point Range:

> 100 C (212 F) at mmHg

Vapor Pressure:

Not Available

Vapor Density:

Not Available

Viscosity:

viscosity (milliPascals seconds) : ~ 1200 mPa.s at 25 C (77 F).

10. STABILITY AND REACTIVITY

Chemical Stability:

This material is stable under normal handling and storage conditions described in Section 7.

Conditions To Be Avoided:

extreme heat
open flame
static electricity
moisture
ignition sources

Materials/Chemicals To Be Avoided:

water
strong bases
strong acids
strong oxidizing agents
alcohols
amines

The Following Hazardous Decomposition Products Might Be Expected:

Decomposition Type: hydrolysis

carbon dioxide

Decomposition Type: thermal

oxides of nitrogen
oxides of carbon

Hazardous Polymerization Will Not Occur.

Avoid The Following To Inhibit Hazardous Polymerization:

not applicable

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation:**Toxicological Information and Interpretation:**

eye - eye irritation, rabbit. Slightly irritating. Data for homopolymer of hexamethylene diisocyanate.

Acute Skin Irritation:**Toxicological Information and Interpretation:**

skin - sensitization, guinea pig. Sensitizing. Data for 1,6-hexamethylene diisocyanate.

skin - skin irritation, rabbit. Irritating. Data for homopolymer of hexamethylene diisocyanate.

Acute Dermal Toxicity:

No test data found for product.

Acute Respiratory Irritation:**Toxicological Information and Interpretation:**

lung - lung irritation (qualitative), human. Slightly irritating to moderating irritating.

Acute Inhalation Toxicity:

No test data found for product.

Acute Oral Toxicity:**Toxicological Information and Interpretation:**

LD50 - lethal dose 50% of test species, > 5000 mg/kg, rat. Data for homopolymer of hexamethylene diisocyanate.

Chronic Toxicity:

This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens.

No additional test data found for product.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

No data found for product.

Chemical Fate Information:

No data found for product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Container Handling and Disposal:

Any containers or equipment used should be decontaminated immediately after use. Decontaminate containers with the solution given under Section 6: Cleanup and Disposal. Containers should be crushed or punctured.

EPA Hazardous Waste - NO

14. TRANSPORTATION INFORMATION

Transportation Status: IMPORTANT! Statements below provide additional data on listed DOT classification.

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors. In the United States, this material may be reclassified as a combustible liquid and is not regulated in containers less than 119 gallons (450 liters) via surface transportation.

US Department of Transportation

Shipping Name:
NOT REGULATED

15. REGULATORY INFORMATION

Inventory Status

| Inventory | Status |
|------------------------|--------|
| UNITED STATES (TSCA) | Y |
| CANADA (DSL) | Y |
| EUROPE (EINECS/ELINCS) | P |
| AUSTRALIA (AICS) | Y |
| JAPAN (MITI) | N |
| SOUTH KOREA (KECL) | Y |

Y = All ingredients are on the inventory.

E = All ingredients are on the inventory or exempt from listing.

P = One or more ingredients fall under the polymer exemption or are on the no longer polymer list. All other ingredients are on the inventory or exempt from listing.

N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing.

FEDERAL REGULATIONS

Inventory Issues:

All functional components of this product are listed on the TSCA Inventory.

SARA Title III Hazard Classes:

| | |
|-----------------------|-------|
| Fire Hazard | - YES |
| Reactive Hazard | - NO |
| Release of Pressure | - NO |
| Acute Health Hazard | - YES |
| Chronic Health Hazard | - YES |

SARA Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances

| Ingredient | CERCLA/SARA RQ | SARA EHS | TPQ |
|---------------------------|----------------|----------|-----|
| ISOPHORONE DIISOCYANATE | | 500 lbs | |
| HEXANE, 1,6-DIISOCYANATO- | 100 lbs | | |

STATE REGULATIONS:

This product contains the following components that are regulated under California Proposition 65:

| Ingredient Name | Cancer | Reprod. | No Sign. Risk Lvl (ug/day) | |
|-----------------|--------|---------|----------------------------|-----|
| | List | List | California | RPI |
| DIOXANE | Y | N | 30 | ND |
| ACETALDEHYDE | Y | N | 90 | ND |
| ETHYLENE OXIDE | Y | Y | 2 | ND |

16. OTHER INFORMATION**National Fire Protection Association Hazard Ratings--NFPA(R):**

- 2 Health Hazard Rating--Moderate
- 2 Flammability Rating--Moderate
- 1 Instability Rating--Slight

National Paint & Coating Hazardous Materials Identification System--HMIS(R):

- 2 Health Hazard Rating--Moderate
- 2 Flammability Rating--Moderate
- 1 Reactivity Rating--Slight

Reason for Revisions:

Change and/or addition made to Section 1.

Key Legend Information:

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

TLV - Threshold Limit Value

PEL - Permissible Exposure Limit

TWA - Time Weighted Average

STEL - Short Term Exposure Limit

NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

ND - Not determined

RHODIA - Rhodia Established Exposure Limits

Disclaimer:

The information herein is given in good faith but no warranty, expressed or implied, is made.

**** End of MSDS Document ****