

# SAFETY DATA SHEET

Randolph Catalyst for HS Ranthane


## 1 – IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

PRODUCT NAME: **Randolph Catalyst for HS Ranthane**  
 PRODUCT NUMBER: AU-CAT-2X1  
 RECOMMENDED USE: Aircraft coatings and cleaners  
 RESTRICTIONS ON USE: Not applicable  
 SUPPLIER: Consolidated Aircraft Coatings  
 P.O. Box 3129, Riverside, CA 92519, USA  
 4343 Fort Drive, Riverside, CA 92509, USA  
 (951) 684-4280  
 (951) 809-7144  
 (760) 782-1947  
 EMERGENCY TELEPHONE: (800) 424-9300 (Chemtrec- US)  
 (703) 527-3887 (International – Call Collect)

## 2 - HAZARDS IDENTIFICATION

### WARNING:

As with all catalyzed polyurethanes, a fresh-air supplied spray mask is mandatory. Charcoal masks will not protect from polyisocyanates in the spray mist

 **WARNING:** This material contains no chemical known to the State of California to cause cancer or reproductive harm. [www.Prop65Warnings.ca.gov](http://www.Prop65Warnings.ca.gov)

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poison Schedule:	Not Scheduled
Australian Inventory of Chemical Substances (AICS)	Listed
New Zealand Inventory of Chemicals (NZIoC)	Listed
Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB 76)	36

### NOTICE:

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

## GHS Hazard Category

Flammable liquid                      Category 3  
 Eye Irritation                         Category 2A  
 Skin Irritation                         Category 2  
 Skin sensitization                    Category 1  
 Respiratory Irritation                Category 3  
 Specific target organ toxicity (single exposure) – Category 3, Central Nervous System H336

## Label Elements

### Pictograms



### Signal Word

**DANGER**

### Hazard Statements

H225: Highly flammable liquid and vapour

H226: Flammable liquid and vapour  
 H317: May cause an allergic skin reaction.  
 H319: Causes serious eye irritation  
 H332: Harmful if inhaled  
 H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H336: May cause drowsiness or dizziness.

## Precautionary Statements

### Prevention

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 P233: Keep container tightly closed.  
 P240: Ground/bond container and receiving equipment.  
 P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
 P242: Use only non-sparking tools.  
 P243: Take precautionary measures against static discharge  
 P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray  
 P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
 P264: Wash skin thoroughly after handling.  
 P270: Do not eat, drink or smoke when using this product.  
 P271: Use only outdoors or in a well-ventilated area.  
 P272: Contaminated work clothing should not be allowed out of the workplace.  
 P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P284: Wear respiratory protection.

### Response

P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
 P312: Call a POISON CENTER or doctor/ physician if you feel unwell.  
 P337 + P313: If eye irritation persists: Get medical advice/ attention.  
 P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
 P301 + P312 + P330: IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
 P304 + P340 + P310: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.  
 P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.  
 P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention.  
 P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
 P363: Wash contaminated clothing before reuse.

### 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.

### Disposal

P501: Dispose of contents/ container to an approved RCRA waste disposal plant.

## 3 – COMPOSITION /INFORMATION ON INGREDIENTS

Name	EC No.	CAS No.	Content %	GHS Classification
Homo Polymer of HDI	500-060-2	28182-81-2	50-60%	Eye irritation (Category 2A), H319 Respiratory sensitisation (Category 1), H334 Skin sensitisation (Category 1), H317
Methyl Ethyl Ketone	201-159-0	78-93-3	30-40%	H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
Methyl Isoamyl Ketone	203-737-8	110-12-3	0-10%	Flammable liquids (Category 3), H226 Acute toxicity, Inhalation (Category 4), H332

The Full Text for all H-Statements and P-Statements is displayed in Section 15

## COMPOSITION COMMENTS

The data shown are in accordance with the latest GHS Directives

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**4- FIRST AID MEASURES**

**NOTE: POLYISOCYANATES HAVE THE POTENTIAL TO CAUSE AN ALLERGIC RESPONSE IN SOME INDIVIDUALS. THIS RESPONSE CAN RANGE FROM MILD WHEEZING TO A SEVERE ASTHMATIC TYPE ATTACK. IF ONE CONTINUES TO EXHIBIT THIS RESPONSE DESPITE THE USE OF PROPER PROTECTIVE MEASURE, HE MAY BE SENSITIZED. SENSITIZED INDIVIDUALS SHOULD AVOID ALL CONTACT WITH ISOCYANATES.**

## INHALATION:

Move the victim to a fresh air place immediately. Get medical attention if discomforts persist.

## INGESTION:

Rinse mouth with clean water immediately. DO NOT induce vomiting. Get medical attention immediately. If vomiting occurs, keep the victim's head low so that vomits from the stomach will not enter the lungs.

## SKIN CONTACT:

Remove contaminated clothing and flush the affected skin areas with clean water for at least 15 minutes. Get medical attention if discomfort persists.

## EYES CONTACT:

Contact lens wearers should consult provider before handling. Flush with water for at least 15 minutes. If there is eye contact, call a physician as soon as possible no matter how slight the injury appears to be. First aid must be started immediately, since delay can result in serious injury. Make sure all contact lenses are removed before flushing the eyes with eye lids open with clean water for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

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**5- FIRE FIGHTING PROCEDURES**

## EXTINGUISHING MEDIA:

Alcohol foam, CO2, Dry Chemical

## SPECIAL FIREFIGHTING PROCEDURES:

**Full emergency equipment with self-contained breathing apparatus should be worn.** During a fire, irritating and toxic gases and smoke from the decomposition products may be present. Isolate from heat, sparks, electrical equipment and open flame. Water is not usually effective in fighting liquid fires. Do not enter a confined area without full bunker gear including a positive-pressure NIOSH-approved self-contained breathing apparatus. Decomposition products may form toxic materials.

## UNUSUAL FIRE AND EXPLOSION HAZARDS:

Closed containers may explode if contaminated with water or basic materials, such as caustic soda, ammonia, amines or certain acids or alcohols; therefore, containers suspected to be contaminated should not be resealed.

Water spray may be used to cool closed containers to help prevent explosion when exposed to extreme heat. Never use welding or cutting torch on or near drum (even empty) because residue or product can ignite explosively. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by pilot lights, flames and other ignition sources at locations distant from the material handling point. Flammable material.

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**6-ACCIDENTAL RELEASE MEASURES**

## STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Remove all spark sources, flames and hot surfaces. Maintain adequate ventilation. Avoid breathing vapors. Add absorbent to spill area. Recover free liquid. Keep chemical products out of streams and waterways. Flush with water to a tank or to an opened well-ventilated area. Absorb or remove to container and dispose of properly in conformity with local government restrictions.

## PERSONAL PRECAUTIONS:

Wear protective clothing as described in Section 8.

## ENVIRONMENTAL PRECAUTIONS:

Spillages or uncontrolled discharges into watercourses must immediately be alerted to Environmental Agency or other appropriate regulatory authority.

## SPILL CLEANUP METHODS:

Keep combustibles away from spilled material. Extinguish all ignition sources. Avoid sparks, open flames, and smoking. Ventilate. Absorb in vermiculite, dry sand, or earth and place into containers for disposal.

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**7-HANDLING AND STORAGE**

## USAGE PRECAUTIONS:

Keep away from heat, sparks and open flames. Avoid spilling, skin and eyes contact. Use with adequate ventilation and avoid excessive exposure to solvent vapors. Use approved respirator if air contamination exceeds the accepted level.

## STORAGE PRECAUTIONS:

Avoid storage in high temperature areas or near fire or open flame. Store in tightly closed containers in cool, dry, isolated, well-ventilated area away from heat or flame, sources of ignition and incompatible materials. Transfer small amounts left over into small containers. Ground lines, containers and other equipment during product transfer. Do not store in glass containers due to the danger of breaking. Do not pour into

containers that held highly flammable materials, static electricity may result. Use good hygiene practices. Wash hands before eating, drinking, etc.

**OTHER PRECAUTIONS:**

Avoid contact with eyes and prolonged or repeated contact with skin. Avoid prolonged or repeated breathing of vapor. Do not ingest. Keep containers tightly closed. Replace all bungs tightly before shipping or storing. Avoid contact with amines

**STORAGE CLASS:**

FLAMMABLE liquid storage.

**8-EXPOSURE CONTROL/PERSONAL PROTECTION**

Name	Workplace Exposure Limits	Remarks
Homo Polymer of HDI	ACGIH: 200ppm TWA; 300ppm STEL. NIOSH: 200ppm TWA; 590 mg/m <sup>3</sup> TWA; 3000ppm IDLH OSHA –Final PELs: 200ppm TWA; 590 mg/m <sup>3</sup> TWA	Consult local authorities for acceptable exposure limits.
Methyl Ethyl Ketone	ACGIH: 200ppm TWA; 300ppm STEL. NIOSH: 200ppm TWA; 590 mg/m <sup>3</sup> TWA; 3000ppm IDLH OSHA –Final PELs: 200ppm TWA; 590 mg/m <sup>3</sup> TWA	Same As Above
Methyl Isoamyl Ketone	ACGIH: 50ppm TWA TLV; OSHA: 100ppm TWA PEL; DFG: 10ppm TWA MAK	Same As Above

**NOTICE:** Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

**PROTECTIVE EQUIPMENTS:****PROCESS CONDITIONS:****ENGINEERING MEASURES:****RESPIRATORY EQUIPMENT:****HANDPROTECTION:****EYE PROTECTION:****OTHER PROTECTION:****HYGIENE MEASURES:**

Provide eyewash station.

Provide adequate ventilation. Fully equipped spray booth is recommended to ensure the workers legal exposure limits are not exceeded.

Wear respirator with appropriate cartridge for organic solvents and chemicals.

Wear approved gloves such as Neoprene, Nitrile or Rubber types.

Wear splash-proof goggles.

Wear appropriate clothing to prevent any possible skin contact.

DO NOT SMOKE IN THE WORK AREA. Wash at the end of each work shift and before eating, drinking or smoking. Promptly remove contaminated clothing.

**9- PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE:	Liquid
COLOR:	Clear
ODOR:	Ketones
BOILING POINT:	175-286° F
RELATIVE DENSITY:	0.852 g/mL
VAPOR DENSITY:	Heavier than air
FLASH POINT:	20 ° F (- 7° C) (Closed Cup)
FLAMMABILITY LIMITS:	1.1% (Lower) 8.2% (Upper)
SOLUBILITY VALUE (g/100g H <sub>2</sub> O @ 20°C):	Insoluble
VOLATILE ORGANIC COMPOUND (VOC):	Coating/Material VOC 2.63 LB/GAL, 315 G/L

**10- STABILITY AND REACTIVITY****STABILITY:**

Unstable

## CONDITIONS TO AVOID:

High humidities, amines, acids, anhydrides, hydroxyls (anything containing water)

## INCOMPATIBILITY (MATERIALS TO AVOID):

Avoid contact with water, alcohols, amines, and other compounds that react with isocyanates.

## HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Thermal decomposition releases carbon monoxide and/or carbon dioxide

## HAZARDOUS POLYMERIZATION:

May occur

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**11-TOXICOLOGICAL INFORMATION**

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**HOMOPOLYMER OF HDI (CAS#28182-81-2):**LD50/rat/oral >5000 mg/kg, EYE EFFECTS: Severe irritant capable of inducing corneal injury (Rabbit); maximum primary eye irritation score: 54.6/110 for a 24 hour exposure. SKIN EFFECTS: Moderate irritant; primary dermal irritation score: 3.4/8.0 (Rabbit). SENSITIZATION: Pulmonary and dermal sensitizer in animals and humans. Evidence exists that cross-sensitization between HDI and other isocyanates, particularly hydrogenated MDI and TDI, can occur.

SUBCHRONIC TOXICITY : Rats exposed to an HDI homopolymer (biuret type, at 3.7, 17.5 and 76.6 mg/cu m for three weeks (6 hrs/day, 5 days/wk) exhibited respiratory distress and many inflamed areas of tissue in the lungs and upper respiratory tract when exposed to 17.5 mg/cu m and above. The No Observable Effect Level (NOEL) was 3.7 mg/cu m. Rats exposed for three months (6 hrs/day, 5 days/wk) to a HDI homopolymer (biuret type, at aerosol concentrations of 0.4, 3.4 and 21 mg/m<sup>3</sup> exhibited lung weight increases at the highest dose. Histopathologic diagnosis of the test animals revealed swelling and thickening in the lower respiratory tract as well as thickening of the bronchio-alveolar areas of the lung and thickening of the septum in the 21 mg/m<sup>3</sup> animals. There were no effects noted in the upper and central respiratory tract. The (NOEL) in this study is considered to be 3.4 mg/m<sup>3</sup>

**Methyl Ethyl Ketone (CAS# 78-93-3):**LD50/rabbit/skin/draize test = 500mg/24H Moderate; LC50/mouse/inhalation = 32mg/m<sup>3</sup>/4H; Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP or OSHA.

**Methyl Isoamyl Ketone (CAS#110-12-3):** LD50= 2540 mg/kg rat /oral. LD50= 8000 mg/kg rabbit/ dermal. LC50=3800 ppm rat/ inhalation.

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**12-ECOLOGICAL INFORMATION**

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**Homo Polymer of HDI (CAS# 28182-81-2) :** No data

**Methyl Ethyl Ketone (CAS#78-93-3):** Ecotoxicity : Fish/Fathead Minnow/LC50 = 3220mg/l; Environmental : Substance evaporates in water with T1/2=3D (rivers) to 12D (lakes); Physical : Substance photo degrades in air with T1/2=2.3 days.

**Methyl Isoamyl Ketone (CAS#110-12-3):** Environmental toxicity: No data. Environmental fate: No data.

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**13 – DISPOSAL CONSIDERATIONS**

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Hazardous wastes should be sent to a RCRA approved incinerator or disposed of in a RCRA approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

**I certify that all chemicals in this shipment comply with all applicable rules or orders under TSCA and that I am not offering a chemical substance for entry in violation of TSCA or any applicable rule or order under TSCA.**

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**14 – TRANSPORT INFORMATION**

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**DOT / ADR / RID Classification:**

**DOT PROPER SHIPPING NAME: PAINT RELATED MATERIAL**

**PRIMARY HAZARD CLASS/DIVISION: 3**

**UN/UA NUMBER: UN1263**

**PACKING GROUP: II**

**IMDG and ADN Classification:**

**IMDG PROPER SHIPPING NAME: PAINT RELATED MATERIAL**

**IMDG UN CLASS: 3**

**IMDG UN NUMBER: 1263**

**IMDG PACKING GROUP: II**

**IMDG LABEL: FLAMMABLE LIQUID**

**IMDG VESSEL STOWAGE: B**

Air shipping this product is not advised and if done must be handled by a certified carrier according to IATA rules.

## 15. REGULATORY INFORMATION

**⚠️ WARNING:** This material contains no chemical known to the State of California to cause cancer or reproductive harm. [www.Prop65Warnings.ca.gov](http://www.Prop65Warnings.ca.gov)

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poison Schedule:	Not Scheduled
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GHS LABEL:

### DANGER

**HIGHLY FLAMMABLE LIQUID AND VAPOR. VAPOR HARMFUL. CAUSES SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL OR FATAL IF SWALLOWED AND ENTERS AIRWAYS.**

Refer to SDS for additional information on safe handling / use. - Keep out of reach of children. For Industrial Use Only.

**Contains:** Homo Polymer of HDI (50-60%), Methyl Ethyl Ketone (30-40%), and Methyl IsoAmyl Ketone (0-10%)

### Hazard Statements

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- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation
- H332: Harmful if inhaled
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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### Precautionary Statements

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- P243: Take precautionary measures against static discharge
- P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray
- P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P264: Wash skin thoroughly after handling.

- P270: Do not eat, drink or smoke when using this product.  
P271: Use only outdoors or in a well-ventilated area.  
P272: Contaminated work clothing should not be allowed out of the workplace.  
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P284: Wear respiratory protection.

## Response

- P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
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## 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.

## Disposal

- P501: Dispose of contents/ container to an approved RCRA waste disposal plant

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### 16- DISCLAIMER

Above information is based on data supplied to us and is believed to be correct. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since the data made available subsequent to the date hereof may suggest modifications of the information, we do not assume responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose. It is the user's obligation to determine the safe use of it.

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