

TERMS: PEL (PERMISSIBLE EXPOSURE LEVEL) OSHA / TLV (THRESHOLD LIMIT VALUE) AMERICAN CONFERENCE OF GOVERNMENTAL HYGIENISTS / CAS# (CHEMICAL ABSTRACT SERVICE) / PPM (PARTS PER MILLION) / STEL (SHORT TERM EXPOSURE LEVEL) / TWA (TIME WEIGHTED AVERAGE)

MATERIAL SAFETY DATA SHEET

PRODUCTS MANUFACTURED BY:
AMERICAN NIAGARA • 6690 JONES MILL COURT • BLDG.A&B • NORCROSS, GA 30092
PH: (770) 441-5900 • TOLL FREE (800) 241-7708 • FAX (770) 409-7240

24 HOUR EMERGENCY 800-424-9300 CHEMTREC

***NOTE: THIS PRODUCT IS NOT BLENDED WITH CHLORINATED SOLVENTS**
REV: 03-11

SECTION I PRODUCT IDENTIFICATION

| | |
|--|--|
| <u>CHEMICAL NAMES & SYNONYMS</u> BLENDED FORMULATION | <u>TRADE NAME</u> DISCOVERY 2011 |
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SECTION II HAZARDOUS INGREDIENTS WITH CAS #'S & WEIGHT BY %

| ACTIVE INGREDIENTS THAT ARE APPLICABLE | CAS NUMBERS THAT ARE APPLICABLE | TLV / PEL | % BY WEIGHT |
|--|---------------------------------|--------------------|---|
| ACETONE (KETONES) | 67-64-1 | 750 TWA; 1000 STEL | NOTE: EXACT PERCENTAGES WITHHELD UNDER 29CFR 19.10.1200(I) AS TRADE SECRETS |
| HEPTANE | 142-85-5 | 500 PPM/TWA | |
| MEDIUM ALIPHATIC HYDROCARBON | 64741-65-7 | PEL 100 ppm | |
| 2 ETHYL-1 HEXANOL / 1 HEXANOL | 104-76-7 | N/E | |

SECTION IIA CHEMICAL RATING SYSTEM

CHEMICAL RATING SYSTEM WHEN APPLICABLE / NFPA (NATIONAL FIRE PROTECTION AGENCY) - PRODUCTS ARE GRADED FROM 0 TO 4 ON (H) HEALTH, (F) FLAMMABILITY, AND (R) REACTIVITY. 0 = NO SPECIAL HAZARD; 1 = SLIGHT; 2 = MODERATE; 3 = HIGH; 4 = EXTREME. THE INFORMATION FOR THIS PRODUCT IS AS FOLLOWS (*NOTE MAY NOT BE APPLICABLE ON CERTAIN TYPES OF PRODUCTS)

H = 2 F = 3 R = 0

SECTION III PHYSICAL DATA

| | | | |
|-----------------------------------|----------------------|-------------------------------------|--------------------------------------|
| <u>BOILING POINT (F)</u> | 131 DEGREES F | <u>SPECIFIC GRAVITY (WATER = 1)</u> | 1.321 @ 25/25 C |
| <u>VAPOR PRESSURE</u> | 188 MM HG @ 20 DEG C | <u>EVAPORATION RATE (ETHER = 1)</u> | 0.8 |
| <u>SOLUBILITY IN WATER (CENT)</u> | COMPLETE | <u>APPEARANCE AND ODOR</u> | COLORLESS LIQUID KETONE LIKE ODOR |

SECTION IV FIRE & EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED) -4 DEGREES F (TCC, TOC, COC) FLAMMABLE LIMITS / LOWER / UPPER
IN AIR @ 25 DEGREES C VOL. 7.5% 12.5%

EXTINGUISHING MEDIA WATER; DRY CHEMICAL; CO2

SPECIAL FIRE FIGHTING EQUIPMENT WEAR POSITIVE PRESSURE, SELF CONTAINED BREATHING APPARATUS

UNUSUAL FIRE AND EXPLOSION HAZARDS
VAPORS MAY CAUSE FLASH FIRE. WATER SOLUTIONS WILL BURN. COOL CONTAINERS WITH WATER MIST.

SECTION V REACTIVITY DATA

STABILITY STABLE YES

STABILITY UNSTABLE CONDITIONS TO AVOID
 AVOID OPEN FLAMES, WELDING ARCS OR OTHER HIGH TEMPERATURE SOURCES WHICH INDUCE THERMAL DECOMPOSITION.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID)
 AVOID STRONG OXIDIZERS

HAZARDOUS DECOMPOSITION
 NOT APPLICABLE

HAZARDOUS POLYMERIZATION
 WILL NOT OCCUR

DEFINITION: The flash point is the lowest temperature at which a liquid or solid gives off enough vapor to form a flammable air-vapor mixture near its surface. The flash point is determined by a variety of test methods which give different results.

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PRODUCT NAME: **DISCOVERY-2011**

SECTION VI HEALTH HAZARD INFORMATION

EYE MAY CAUSE EYE PAIN. MAY CAUSE SLIGHT TRANSIENT (TEMPORARY) IRRITATION WITH SLIGHT CORNEAL INJURY. VAPORS MAY IRRITATE EYES. AVOIDSPLASH BACK.

SKIN CONTACT PROLONGED OR REPEATED EXPOSURE MAY CAUSE SKIN IRRITATION. REPEATED CONTACT MAY CAUSE DRYING OR FLAKING OF SKIN.

SKIN ABSORPTION A SINGLE PROLONGED SKIN EXPOSURE IS NOT LIKELY TO RESULT IN ABSORPTION OF HARMFUL AMOUNTS. THE LD50 FOR RABBITS IS ABOUT 15,000 MG/KG.

INGESTION SINGLE DOSE ORAL TOXICITY IS LOW. THE LD50 FOR RATS IS >10,000 MG/KG. IF ASPIRATED (LIQUID ENTERS THE LUNG), MAY BE RAPIDLY ABSORBED THROUGH THE LUNGS AND RESULT IN INJURY TO OTHER BODY SYSTEMS

INHALATION LEVELS OVER 1000 PPM MAY CAUSE DIZZINESS, DRUNKENESS; CONCENTRATIONS AS LOW AS 10,000 PPM CAN CAUSE UNCONSCIOUSNESS AND DEATH. THESE HIGH LEVELS MAY ALSO CAUSE CARDIAC ARRHYTHMIAS (IRREGULAR HEART BEATS). IN CONFINED OR POORLY VENTILATED AREAS, VAPORS WHICH READILY ACCUMULATE CAN CAUSE UNCONSCIOUSNESS AND DEATH.

SYSTEMIC& OTHER EFFECTS

EMERGENCY & FIRST AID PROCEDURES

EYE & SKIN **REMOVE CONTAMINATED CLOTHING AND FLUSH EXPOSED AREAS WITH WATER FOR 5 TO 15 MINUTES. FLUSH WITH WATER. GET MEDICAL ATTENTION.**

INHALATION REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, ADMINISTER RESPIRATION OR OXYGEN IF AVAILABLE. CALL A PHYSICIAN.

INGESTION DO NOT INDUCE VOMITING. CALL PHYSICIAN AND OBTAIN MEDICAL ATTENTION - IMMEDIATELY.

NOTE TO PHYSICIAN BECAUSE RAPID ABSORPTION MAY OCCUR THROUGH LUNGS IF ASPIRATED AND CAUSE SYSTEMIC EFFECTS, THE DECISION OF WHETHER TO INDUCE VOMITING OR NOT SHOULD BE MADE BY A PHYSICIAN. IF LAVAGE IS PERFORMED, SUGGEST ENDOTRACHEAL AND/OR ESOPHAGEAL CONTROL. DANGER FROM LUNG ASPIRATION MUST BE WEIGHED AGAINST TOXICITY WHEN CONSIDERING EMPTYING THE STOMACH. EXPOSURE MAY INCREASE MYOCARDIAL IRRITABILITY. DO NOT ADMINISTER SYMPATHOMIMETIC DRUGS UNLESS ABSOLUTELY NECESSARY. NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE. TREATMENT BASED ON JUDGEMENT OF THE PHYSICIAN IN RESPONST TO REACTIONS OF THE PATIENT.

SECTION VII SPILL & DISPOSAL PROCEDURES

SMALL LEAKS
LARGE SPILLS MOP UP, WIPE UP, OR SOAK UP IMMEDIATELY. REMOVE TO OUT-OF-DOORS.

DISPOSAL METHOD STOP SPILL AT SOURCE. EVACUATE AREA. CONTAIN LIQUID; TRANSFER TO CLOSED METAL CONTAINERS. KEEP OUT OF WATER SUPPLIES.

RESPIRATORY: WHEN DISPOSING OF THE UNUSED CONTENTS, THE PREFERRED OPTIONS ARE TO SEND LICENSED RECLAIMER, OR TO PERMITTED INCINERATORS. ANY DISPOSAL PRACTICE MUST BE IN COMPLIANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS. DO NOT DUMP INTO ANY BODY OF WATER. EMPTY CONTAINERS MUST BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS. DO NOT CUT OR WELD CONTAINER DUE TO EXPLOSION HAZARD.

SECTION VIII SPECIAL PROTECTION INFORMATION

EYE NONE REQUIRED WHEN USED WITH ADEQUATE VENTILATION, AVOID SPLASH BACK.

SKIN CHEMICAL SAFETY GOGGLES, CONTACT LENSES SHOULD NOT BE WORN.

OTHER NEOPRENE, VITON, POLYVINYL ALCOHOL COATED GLOVES OR EQUIVALENT.

PROTECTIVE HEADGEAR & APRON WHEN SPLASHING IS A PROBLEM

VENTILATION REQUIREMENTS SUFFICIENT TO MAINTAIN BELOW PEL

SECTION IX SPECIAL PRECAUTIONS

HANDLING & STORAGE AVOID CONTACT WITH SKIN AND AVOID BREATHING VAPORS. PIPE VENTS OUTDOORS. STORE IN COOL, DRY VENTILATED AREA. VAPORS HEAVIER THAN AIR AND WILL COLLECT IN LOW AREAS.

OTHER PREVENT MOIST AIR FROM ENTERING STORAGE. NO SMOKING IN PRESENCE OF VAPORS.

HIGHLY FLAMMABLE --- USE WITH CAUTION

DISCLAIMER

THE INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET IS PROVIDED PURSUANT TO 29CFR 1910.1200 TO CONVEY INFORMATION CONCERNING THE HAZARDOUS NATURE OF THE NAMED PRODUCT. THE INFORMATION SUPPLIED WAS COMPILED FROM THE MOST RELIABLE SOURCES AVAILABLE AT THE TIME OF PREPARATION AND IN LIGHT OF THE MOST REASONABLE OR SEEABLE EXPOSURE SITUATIONS EXPECTED FROM THE INTENDED USE OF THIS PRODUCT. THE MATERIAL MAY PRESENT GREATER OR LESSER HAZARD EXPOSURE UNDER OTHER CIRCUMSTANCES THAT ARE BEYOND THE CONTROL OF THE MANUFACTURER. FOLLOW ALL DIRECTIONS AND WARNINGS ON THE PRODUCT LABEL.

PAGE 3 • DISCOVERY 2011 (ADDENDUM)

The median lethal dose of a substance, or the amount required to kill 50% of a given test population. LD50 is a measurement used in toxicology studies to determine the potential impact of toxic substances on different types of organisms. It provides an objective measure to compare and rank the toxicity of substances. The LD50 measurement is usually expressed as the amount of toxin *per kilogram or pound of body weight*. When comparing LD50 values, a lower value is regarded as more toxic, as it means a smaller amount of the toxin is required to cause death. The LD50 test involves exposing a population of test animals, typically mice, rabbits, guinea pigs, or even larger animals such as dogs, to the toxin in question. The toxins might be introduced orally, through injection, or inhaled. Because this testing kills a large sample of the animals, it is now being phased out in the United States and some other countries in favor of newer, less lethal methods.

INGREDIENTS IN “DISCOVERY 2011” SOLVENT

(1) ACETONE (CORRECTION) Oral, rat: LD50 = 5800 mg/kg;

Toxicology

Some sources estimate LD_{50} for human ingestion at 1.159 g/kg; LD_{50} inhalation by mice is given as 44 g/m³, over 4 hours.^[15]

(2) HEPTANE

LD50/LC50:

CAS# 142-82-5:

Inhalation, rat: LC50 = 103 gm/m³/4H;

(3) 2-ETHYL HEXANOL (ALCOHOL)

Toxicity data

(The meaning of any abbreviations which appear in this section is given [here](#).)

ORL-RAT LD50 2049 mg kg⁻¹

IPR-RAT LD50 650 mg kg⁻¹

ORL-MUS LD50 2500mg kg⁻¹

IPR-MUS LD50 759 mg kg⁻¹

ORL-RBT LD50 1180mg kg⁻¹

(3) MEDIUM ALIPHATIC HYDROCARBON (ODORLESS MINERAL SPIRITS)

TOXICITY DATA:

Component Analysis - LD50/LC50

Naphtha (petroleum), heavy alkylate (64741-65-7)

Inhalation LC50 Rat: >5.04 mg/L/4H

Oral LD50 Rat: >7000 mg/kg

Dermal LD50 Rat: >3000 mg/kg

Dermal LD50 Rabbit: >2000 mg/kg