

SAFETY DATA SHEET

Revision Date 04/01/2016

SECTION 1. CHEMICAL IDENTIFICATION

PRODUCT NUMBER : 131144

PRODUCT NAME : (2R,3R)-3-Amino-2-hydroxy-4-phenylbutyric acid

SYNONYMS :

COMPANY : AFG Bioscience LLC

1818 Skokie Boulevard Northbrook, IL 60062 USA info@afgbioscience.com

24 HOUR EMERGENCY

TO REQUEST AN MSDS

TELEPHONE

: Within USA/Canada

: +1 800-633-8253 : +1 801-629-0667

Outside USA/Canada

: +1 888-535-2444

CUSTOMER SERVICE : +1 888-535-2444

SECTION 2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

NOT A HAZARDOUS SUBSTANCE OR MIXTURE.

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

NOT A HAZARDOUS SUBSTANCE OR MIXTURE.

HAZARDS NOT OTHERWISE CLASSIFIED

(HNOC) OR NOT COVERED BY GHS

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

NONE

SECTION 4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

GENERAL ADVICE IMMEDIATELY REMOVE ANY CLOTHING CONTAMINATED BY THE PRODUCT.

MOVE OUT OF DANGEROUS AREA. CONSULT A PHYSICIAN AND

SHOW THIS SAFETY DATA SHEET.

IF INHALED MOVE PERSON TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL

RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN AND CONSULT A

PHYSICIAN

IN CASE OF SKIN CONTACT IMMEDIATELY FLUSH SKIN WITH RUNNING WATER FOR AT LEAST 15 MINUTES

WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. WASH CLOTHING BEFORE REUSE. CONSULT A PHYSICIAN IMMEDIATELY

IN CASE OF EYE CONTACT IMMEDIATELY WASH SKIN WITH COPIOUS AMOUNTS OF WATER FOR AT

LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS WITH FINGERS. IF IRRITATION PERSISTS, DO NOT INDUCE VOMITING . NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A

IF SWALLOWED

AND EFFECTS, BOTH ACUTE **AND DELAYED**

MOST IMPORTANT SYMPTOMS THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED

IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

NO DATA AVAILABLE

SECTION 5. FIRE AND EXPLOSION DATA

EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING

USE WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE OR CHEMICAL FOAM.

MEDIA

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR

MIXTURE

HYDROGEN CHLORIDE, NITROGEN OXIDES, CARBON OXIDES

ADVICE FOR FIREFIGHTERS WEAR SELF CONTAINED BREATHING APPARATUS FOR FIRE FIGHTING IF

NECESSARY.

FURTHER INFORMATION NO DATA AVAILABLE

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, **EMERGENCY PROCEDURES**

WEAR PROTECTIVE EQUIPMENT AND KEEP UNPROTECTED PERSONNEL PROTECTIVE EQUIPMENT AND AWAY. ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF IGNITION. PREVENT FURTHER LEAK OR SPILL IF SAFE TO DO SO.

FOR PERSONAL PROTECTION SEE SECTION 8.

ENVIRONMENTAL PRECAUTIONS

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS, DISCHARGE INTO THE ENVIRONMENT MUST BE

AVOIDED.

METHODS AND MATERIALS FOR CONTAINMENT AND

CLEANING UP

PREVENT FURTHER LEAK OR SPILL IF SAFE TO DO SO. VACUUM, SWEEP UP, OR ABSORB WITH INERT MATERIAL AND PLACE INTO A SUITABLE DISPOSAL CONTAINER, CONSULT LOCAL REGULATIONS FOR DISPOSAL

REFERENCE TO OTHER

SECTIONS

FOR DISPOSAL SEE SECTION 13.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE **HANDLING**

AVOID CONTACT WITH SKIN, EYES, AND PERSONAL CLOTHING. WASH HANDS THOROUGHLY AFTER HANDLING. AVOID BREATHING FUMES. USE ONLY WITH ADEQUATE VENTILATION. WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES, AND EYE/FACE PROTECTION. KEEP AWAY FROM SOURCES OF IGNITION. MINIMIZE DUST GENERATION AND ACCUMULATION. KEEP CONTAINER TIGHTLY CLOSED. OPEN AND HANDLE CONTAINER WITH CARE. DO NOT EAT,

DRINK, OR SMOKE WHILE HANDLING.

FOR PRECAUTIONS SEE SECTION 2.2.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY **INCOMPATIBILITIES**

STORE IN A TIGHTLY-CLOSED CONTAINER WHEN NOT IN USE. STORE IN A

COOL, DRY, WELLVENTILATED AREA AWAY FROM INCOMPATIBLE

SUBSTANCES. KEEP AWAY FROM SOURCES OF IGNITION.

RECOMMENDED STORAGE

TEMPERATURE

Store at 0-8 °C

SPECIFIC END USE(S) APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC

USES ARE STIPULATED

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

COMPONENTS WITH WORKPLACE CONTROL

PARAMETERS

CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES.

EXPOSURE CONTROLS

CONTROLS

APPROPRIATE ENGINEERING AVOID CONTACT WITH SKIN, EYES, AND CLOTHING. WASH HANDS BEFORE BREAKS AND IMMEDIATELY AFTER HANDLING THE PRODUCT. FACILITIES STORING OR UTILIZING THIS MATERIAL SHOULD BE EQUIPPED WITH AN EYEWASH FOUNTAIN. USE ADEQUATE VENTILATION TO KEEP AIRBORNE CONCENTRATIONS LOW.

PERSONAL PROTECTIVE EQUIPMENT

SAFETY GLASSES WITH SIDE-SHIELDS CONFORMING TO EN166 USE **EYE/FACE PROTECTION**

> EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166

SKIN PROTECTION HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE

PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE"S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE

LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.

IMPERVIOUS CLOTHING. THE TYPE OF PROTECTIVE EQUIPMENT MUST BE **BODY PROTECTION**

SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE

DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

RESPIRATORY PROTECTION WHERE RISK ASSESSMENT INDICATES AIR-PURIFYING RESPIRATORS ARE

> REQUIRED USE A DUST MASK TYPE N95 (US) OR TYPE P1 (EN 143) RESPIRATOR. RESPIRATORS AND COMPONENTS MUST TESTED AND

APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS - NIOSH (US)

CONTROL OF

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET ENVIRONMENTAL EXPOSURE PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE

AVOIDED.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE White powder

ODOUR NO DATA AVAILABLE NO DATA AVAILABLE **ODOUR THRESHOLD** PH NO DATA AVAILABLE

MELTING POINT/FREEZING

POINT

INITIAL BOILING POINT AND

BOILING RANGE FLASH POINT

EVAPORATION RATE NO DATA AVAILABLE FLAMMABILITY (SOLID, GAS) NO DATA AVAILABLE UPPER/LOWER FLAMMABILITY NO DATA AVAILABLE

OR EXPLOSIVE LIMITS

VAPOUR PRESSURE NO DATA AVAILABLE VAPOUR DENSITY NO DATA AVAILABLE RELATIVE DENSITY

WATER SOLUBILITY NO DATA AVAILABLE PARTITION COEFFICIENT: N-NO DATA AVAILABLE

OCTANOL/WATER

AUTO-IGNITION TEMPERATURE NO DATA AVAILABLE

DECOMPOSITION NO DATA AVAILABLE

TEMPERATURE

VISCOSITY NO DATA AVAILABLE **EXPLOSIVE PROPERTIES** NO DATA AVAILABLE **OXIDIZING PROPERTIES** NO DATA AVAILABLE OTHER SAFETY INFORMATION NO DATA AVAILABLE

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY NO DATA AVAILABLE

STABLE UNDER RECOMMENDED STORAGE CONDITIONS. **CHEMICAL STABILITY**

POSSIBILITY OF HAZARDOUS NO DATA AVAILABLE

REACTIONS

CONDITIONS TO AVOID HEAT, FLAMES AND SPARKS **INCOMPATIBLEMATERIALS** STRONG OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION CARBON MONOXIDE, NITROGEN OXIDES, HYDROGEN CHLORIDE

PRODUCTS IN THE EVENT OF FIRE: SEE SECTION 5

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY NO DATA AVAILABLE SKIN CORROSION/IRRITATION NO DATA AVAILABLE **SERIOUS EYE DAMAGE/EYE** NO DATA AVAILABLE

IRRITATION

RESPIRATORY OR SKIN

SENSITISATION

NO DATA AVAILABLE

GERM CELL MUTAGENICITY NO DATA AVAILABLE

CARCINOGENICITY

IARC: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR

EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED

HUMAN CARCINOGEN BY IARC.

NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR ACGIH:

EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL

CARCINOGEN BY ACGIH.

NTP: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR

EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED CARCINOGEN

BY NTP.

NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR OSHA:

EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL

CARCINOGEN BY OSHA.

REPRODUCTIVE TOXICITY NO DATA AVAILABLE

SPECIFIC TARGET ORGAN

TOXICITY - SINGLE EXPOSURE

NO DATA AVAILABLE

SPECIFIC TARGET ORGAN

TOXICITY - REPEATED

NO DATA AVAILABLE

EXPOSURE

ASPIRATION HAZARD NO DATA AVAILABLE

ADDITIONAL INFORMATION RTECS: NOT AVAILABLE

> TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL AND TOXICOLOGICAL PROPERTIES OF THIS SUBSTANCE HAVE NOT BEEN

THOROUGHLY INVESTIGATED.

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY NO DATA AVAILABLE PERSISTENCE AND NO DATA AVAILABLE

DEGRADABILITY

BIOACCUMULATIVE NO DATA AVAILABLE **MOBILITY IN SOIL** NO DATA AVAILABLE

RESULTS OF PBT AND VPVB PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY

ASSESSMENT ASSESSMENT NOT REQUIRED/NOT CONDUCTED

OTHER ADVERSE EFFECTS NO DATA AVAILABLE

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCT OFFER SURPLUS AND NON-RECYCLABLE CHEMICAL TO A LICENSED

DISPOSAL COMPANY. CONTACT A LICENSED PROFESSIONAL WASTE

DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL.

CONTAMINATED PACKAGING DISPOSE OF AS UNUSED PRODUCT.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

NOT DANGEROUS GOODS

IMDG

NOT DANGEROUS GOODS

IATA

NOT DANGEROUS GOODS

SECTION 15. REGULATORY INFORMATION

SARA 302: NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE **SARA 302 COMPONENTS**

REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.

SARA 313 COMPONENTS SARA 313: THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS

WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS)

REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW **MASSACHUSETTS RIGHT TO**

KNOW COMPONENTS ACT.

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

(2R,3R)-3-Amino-2-hydroxy-4-phenylbutyric acid 128223-55-2

NEW JERSEY RIGHT TO KNOW COMPONENTS

CAS-NO. **REVISION DATE**

128223-55-2 (2R,3R)-3-Amino-2-hydroxy-4-phenylbutyric acid

CALIFORNIA PROP. 65 THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO STATE OF

COMPONENTS CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR ANY OTHER

REPRODUCTIVE HARM.

SECTION 16. OTHER INFORMATION

MSDS LEGEND

MW: MOLECULAR WEIGHT MF: MOLECULAR FORMULA

VOC: VOLATILE ORGANIC COMPOUNDS

ACGIH AMERICAN CONFERENCE OF GOVERNMENENTAL INDUSTRIAL HYGINISTS

CAS: CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER
OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

PEL: PERMISSIBLE EXPOSURE LIMIT (OSHA)
TLV: THRESHOLD LIMIT VALUE (ACGIH)